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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ol. 88, No. 5 MAY, 1935 Member A.B.C.—A.B.P.

This Warehouse Fire in Brooklyn, N. Y., Which Burned for Fifty-six Hours, Required a Five-Alarm Response, and Special Calls for Additional Apparatus, and More Men to Replace the Many Who Were Incapacitated by the Intense Smoke and Heat. (See Page 183.)

BARTON FIRE PUMPS

- - *Backed by Years of "KNOWING HOW!"*

GEARED DRIVE · LOW SPEEDS PROTECT YOUR MOTOR

Barton Fire Pumps have passed ALL test requirements of the National Board of Fire Underwriters. They are recognized and accepted. The Barton shown at right is a 500-gallon pump. There are four smaller sizes.

A Barton Centrifugal Pump delivers water from any source: clean water from hydrants or booster tank; dirty water from a river, pond, cistern, etc.

A Barton is extremely light weight (largest size only about 175 pounds). It won't overload any standard chassis.

Hanging on the wall in our main office is a big map of the United States. It has been there more than a decade. Every time we sell a Barton Fire Pump we stick a red headed pin into that map.

Today the map is crowded, each pin representing a Barton Pump in service. More interesting however is the large percentage of towns and cities which now have two or more pins to their credit.

These are the many places so well satisfied with Barton performance and stamina that, when additional fire fighting equipment was needed, they reordered Barton Pumps.

Back of the Barton Pump is years of "knowing how." We have been making pumps for more than sixty years—Bartons for more than ten. This long experience counts.

A Barton is the ONLY front mounted centrifugal fire pump truly beyond the experimental stage . . . the ONLY front mounted pump with slow speed geared drive that protects your motor . . . the ONLY front mounted pump having a thoroughly automatic primer.

Certainly it costs a few dollars more to incorporate these extra features —this extra quality—into Barton Pumps. But what is a few dollars compared to DEPENDABLE PERFORMANCE YEAR AFTER YEAR? Remember fires won't wait while you tinker with a motor that's "shot" from excessive speeds, or a primer that's faulty.

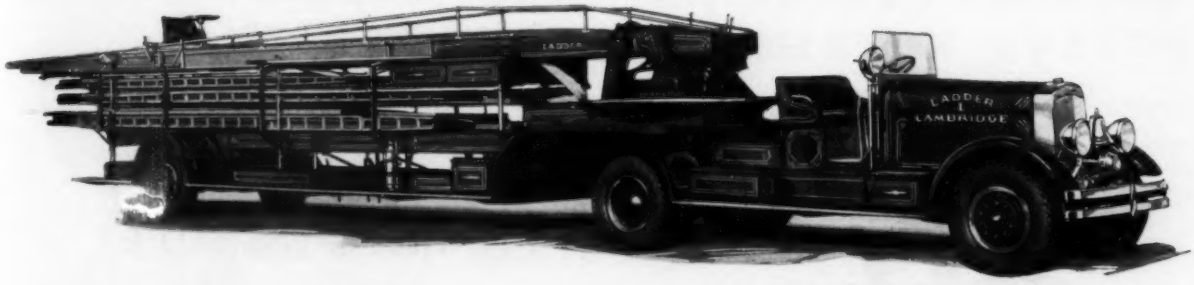
Write for Bulletin 75 and know the facts. AMERICAN STEAM PUMP COMPANY, Battle Creek, Michigan.

A Barton can be installed on practically any chassis by an average mechanic in a few hours.

Because of front drive and use of standard low cost chassis, a Barton saves hundreds of dollars in cost of complete apparatus.

The PIRSCH *With Complete One Man Control* (Patented)

HYDRO-MECHANICAL AERIAL LADDER TRUCK



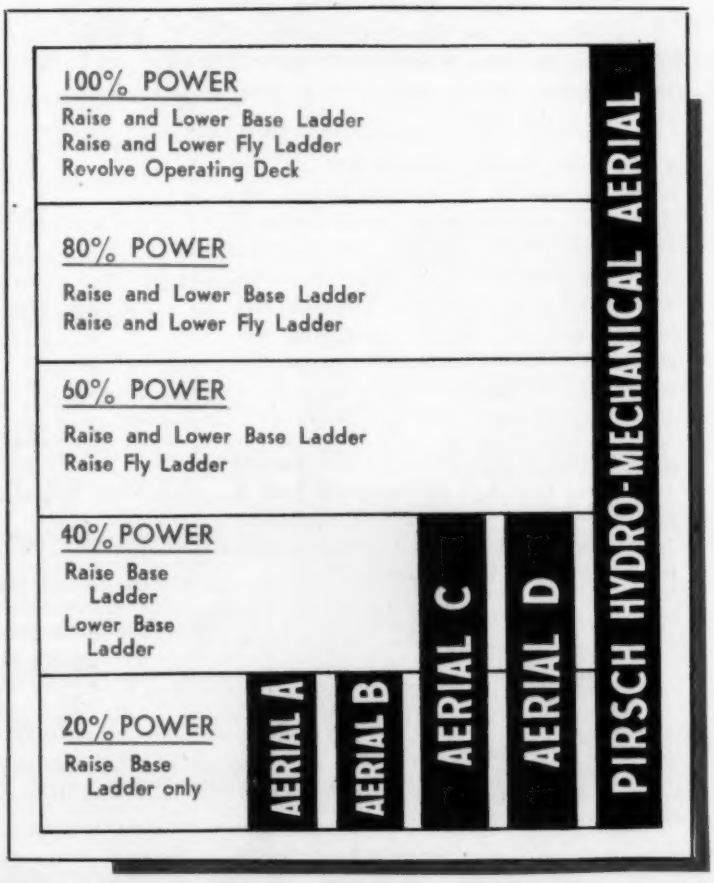
YOU CANNOT AFFORD TO OVERLOOK THIS COMPARISON WHEN YOU PURCHASE AN AERIAL LADDER TRUCK!

The chart shows

comparative efficiency of the Pirsch Hydro-Mechanical Aerial Ladder Truck as compared with four other well known makes. Note that the Pirsch Aerial is the only 100% *All Powered* Job.

A piece of equipment costing many thousand dollars and built to last from fifteen to twenty years or more should be modern and up-to-date—at least when it is bought. If it is obsolete when purchased, what will it be fifteen years hence?

Efforts will be made to follow our lead—but Pirsch originated, pioneered, and developed the idea.



PETER PIRSCH & SONS CO.

KENOSHA, WISCONSIN

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FIRE ENGINEERING

The Journal of the Fire Protection Profession Since 1877

ROBERT H. LOCKWOOD, Associate Editor
FRED SHEPPERD, Editor
N. N. WOLPERT, Assistant Editor

A Good Sign

THERE certainly can be nothing more encouraging than the large number of places that have increased their firemen's salaries during the past year or so, as listed elsewhere in this issue.

● The trend toward restoring pay cuts can readily be taken as the soundest kind of evidence that cities everywhere are beginning to get their financial structures in order and that it won't be long now before many of the penny-wise, pound foolish economy programs that have raised havoc with fire departments will give way to a more sober, sensible, business-like appreciation of what is really necessary for a community's safety.

● Right now is a good time for fire chiefs to step in and fight hard for what they need in the way of more men and new equipment. It may be a tough battle, but you're bound to win if you keep at it persistently.

The Publishers

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GIVES YOU MORE TRACTION GREATER SAFETY—LONGER WEAR—AT HIGHER SPEEDS

FIRESTONE patented construction features enable us to give you a tire with higher shoulders —wider and deeper non-skid tread.

The cords in the body are Gum-Dipped, giving greater strength and longer flexing life.

The two extra layers of Gum-Dipped cords under the tread give a firmer union between tread and body which holds this heavy non-skid tread securely to the tire body.

Equip today with these safe and economical tires! You will get uninterrupted service, maintain faster schedules and get safety protection beyond anything you have heretofore experienced.

Call on the Firestone Service Store or Service Dealer *now* and start reducing your operating costs today.

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★★★★★ *Listen to the Voice of Firestone — featuring Richard Crooks, Gladys Swarthout, or Nelson Eddy — every Monday night over N. B. C. — W E A F Network . . . A Five Star Program*

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For Quick Starts, Longer Mileage
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FIRESTONE FAN BELTS
FIRESTONE RADIATOR HOSE

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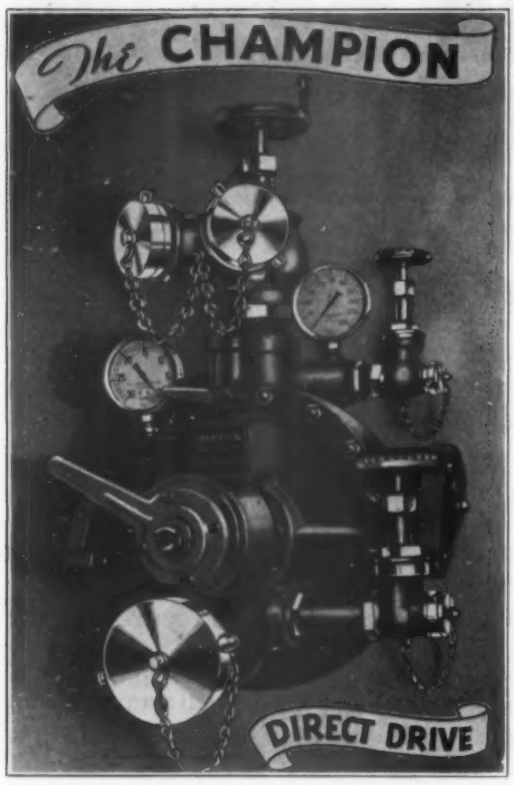


It is fair to say that in the building of the Champion, nothing is left undone which will in any way contribute to its excellence. If the Champion pump is a veritable masterpiece of engineering practice, it is so because the high principles set for its building, include Floating Power, Ball Bearings, Friction Clutch, Bronze Volute Impeller, Safety Primer, etc.

Price includes Front Mounting Brackets, 300 lb. Pressure Gauge, Automatic Safety Primer, Shut-Off Valve, Brass Caps, with plugged inlet and outlet for booster tank connections, auxiliary motor cooling.

☞ Net Price to Fire Departments, complete with all the above equipment, f.o.b. Chicago... **$315.00**

Siamese Connections, Booster line Valves are extra but cost little.

Try a Champion on 30 DAYS' APPROVAL

At no extra charge W. S. Darley & Co. customers' maintenance service keeps the Champion Pump, its every part and every function, at its natural high point of efficiency. And, should any part show any defect, or any undue wear, for 5 YEARS, a replacement or new part will cost you nothing!

We'll gladly ship on 30 days free trial. ☞ You be the judge if there is any better front mounted pump AT ANY PRICE. ☞ If there is, return ours and we will pay the freight both ways.

High Gauge Pressures guaranteed. ☞ 120 lbs. with 2½ inch hose or ☞ 250 lbs. with leader line or booster hose and tips. In our opinion Champion performance with any motor is unequaled.

Fast Fire Trucks equipped with Champion Pumps and Booster Tanks, extinguish 80% of all fires ☞ without connecting to fire hydrants or laying out any of their supply of 2½" fire hose.

BUILT TO STAY BUILT

This Ford Chassis including Champion Pump, Steel Body, Booster Tank, Platform Step, Searchlight, Siren, Ladders, Bell, Hose Lights, Fresnel Lights, Firemen's Lantern, Hand Extinguisher, Etc. AS YOU SEE IT approximately only $1595.00 ALL COMPLETE and ready to go.

To Chiefs Who Will Think It Over!

We wish we could get every Chief who is interested in front pumps to study DIRECT-DRIVE. Neither talking, advertising nor pictures can bring out the real feature of this new kind of fire pump. You have only to test a Champion to appreciate the improvements we have accomplished.

The Champion Front Mounted Fire Pump Easily Passed the Underwriters Tests

Because it is ruggedly designed to run on DIRECT DRIVE from the crank shaft this new model Champion easily PASSED the 12-HOUR test conducted by an Engineer of the NATIONAL BOARD of FIRE UNDERWRITERS.

If you want COMPLETE SECURITY, accept only an UNDERWRITERS DIRECT DRIVE pump; it may cost you more but it's a sound investment for the future. ☞ You'll never know the regret of hastily (and who isn't in haste at a fire) letting in the clutch and having the pump completely wrecked almost instantly or the motor crankshaft twisted and ruined beyond repair.

Champions! The Greatest Advance in Modern Front Fire Pump Engineering! Secret of the Astounding Stamina!

Modern truck chassis have FLOATING POWER. ☞ Champion Pumps, with direct-drive shafts FLOAT WITH THE MOTOR! ☞ You can deliberately set a Champion OUT OF ALIGNMENT with the motor and NOTHING HAPPENS! Think what that means!

Take the clutch that engages the motor to the pump. How fatal it may be. Examine well the Champion Clutch! Notice it is out in front. Because it's a FRICTION clutch you don't have to stop or idle down the motor! Because it's a FRICTION clutch there are no "dogs" or teeth to be cautiously meshed.

If you would compare the primer with anything you know of you would say it could not possibly drown the motor (or kill it) BECAUSE IT HAS NO FLOATS.

Make it Plain to Your Committeemen that Price Means Nothing to You as Against Your Community's Security

Tell them you want the NEW Champion Centrifugal that Pumps Clean or Dirty water at high pressure from hydrants, ponds, rivers, cisterns or booster tanks! Tell them you want the DIRECT-DRIVE-NO-GEAR pump!

Tell them you want the pump it is impossible to wreck when anybody excitedly throws in the clutch to start it!

Insist that the pump shall drive from floating power motors, without having to bolt down the motor to try to keep it in line with the pump shaft!

Make it plain you want the primer that has NO FLOATS, and is AUTOMATIC and SAFE.

Build Your Own Fire Truck for City or Rural Service!

It's Easy! Buy any chassis from your local dealer and besides the best in pumps you can get the best in equipment from us. Or, buy your chassis from YOUR DEALER, who will have it delivered direct from factory to us and we will furnish Pump, Body, Booster Tank, Paint, Siren, Hose, Axes, Nozzles, etc.—anything you desire ☞ and, at the outside, the cost will be only a few hundred dollars.

All Complete except hose

$1595

Ford V-8 Chassis
Capacity, 1000 ft. hose.

Your job will look like this when you come to drive it away.

☞Passed the 12-hour test by the National Board of Fire Underwriters and accepted by all State Inspection Actuarial Bureaus.

W. S. DARLEY & Co.

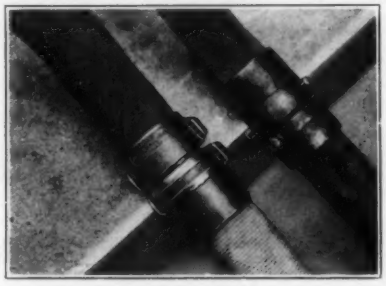
THE BEST IN FIRE DEPARTMENT EQUIPMENT
2810 Washington Blvd. CHICAGO

DUAL GRIP
Beveled Lug Fire Hose Coupling
FOR *SPEED* AND SAFETY

The Only Coupling With This Shallow Wrench Guiding Groove

The shallow Wrench Guiding Groove prevents the wrench from slipping sideways and also guides the wrench in locating center of groove quickly and accurately.

THE NATIONAL BOARD OF FIRE UNDERWRITERS HAVE APPROVED AND RECOMMEND DUAL GRIP BEVELED LUG SAFETY FIRE HOSE COUPLINGS.



SLIDES OVER OBSTRUCTIONS

Notice that the old style coupling (right) in the above picture has caught on the curb, but the DUAL GRIP BEVELED LUG COUPLING (left) permits the fireman pulling the hose to continue right on to the fire without hindrance.

The broad, flat and tapered ends of lugs on the DUAL GRIP BEVELED LUG COUPLING let the fire hose slide right on over street curbs, up ladders, stairs and other obstructions.

IMPROVED COMMON WRENCH

Fits 1½" to 4" couplings of any style lug. Made of tough electrically treated steel, rust-proof finish. Designed also for use as gas shut-off and window pry.

PROTECTS EXPENSIVE FIRE HOSE

The lugs on the now obsolete pin lug type coupling soon become worn, developing sharp edges which cut and seriously damage the fire hose as it lays in the hose body—just as illustrated here.

This wear and tear on expensive fire hose can be overcome by adopting DUAL GRIP BEVELED LUG SAFETY COUPLINGS—the coupling that does not develop burrs or knifelike cutting edges.

PISTOL-GRIP FIRE HOSE COUPLING WRENCH

Snaps on the coupling lug and stays there automatically until the coupling operation has been completed. THINK WHAT A TREMENDOUS ADVANTAGE this feature is, especially AT NIGHT OR IN ZERO WEATHER. Consider, also, that the PISTOL GRIP WRENCH eliminates injury that is often experienced with spanner wrenches of other types slipping off the lug. FITS DUAL GRIP BEVELED and all lug type couplings, including pin lug. Made of special aluminum alloy. Light in weight and no longer than regular type wrenches.

NO EXTRA COST
All fire hose manufacturers and jobbers can furnish Dual Grip Couplings on their hose at no extra cost to your city.

THE GENERAL FIRE TRUCK CORP.
Manufacturers of Dual Grip Couplings, Fire Extinguishers and Fire Trucks
1127-33 Forest Park Ave. ST. LOUIS, MO.

If you are looking for PROMOTION— or BIGGER PAY—or a better and more useful knowledge of Fire Fighting—

Make use of this coupon NOW!

QUESTIONS AND ANSWERS FOR LIEUTENANT AND CAPTAIN

A 260 page book, fully illustrated, by Geo. J. Kuss, Former Deputy Chief, New York Fire Department, and Fred. Shepperd, Managing Editor of FIRE ENGINEERING.

Contains questions asked at promotional examinations in practically every city in the country where civil service examinations are held, with answers.

Includes chapters on Report Writing, How to Answer Examination Questions, Chemistry Examination Questions, Fire Fighting Questions, Overhauling, Ventilation, Fire Prevention, Inspection, Evolutions, Drills, Use of Apparatus, Rescue Work, and in fact all the topics covered by the fire department promotional examinations.

If you are studying for a promotional examination, you need this book, and if you are not studying for examination, this book will nevertheless give you a vast amount of valuable information on up-to-date fire methods.

Price $2.65 Postpaid

QUESTIONS AND ANSWERS FOR BATTALION AND DEPUTY CHIEF

A 210 page book, fully illustrated, by Geo. J. Kuss, Former Deputy Chief, New York Fire Department, and Fred. Shepperd, Managing Editor of FIRE ENGINEERING.

A valuable book, not only for candidates for examination for Battalion and Deputy Chief, but for every member of the department. The only book published which gives detailed methods of operating at large fires and the reasons for each move.

The following are a few of the important topics covered:

Detailed description of the proper procedure in fighting fires: 1. Size-up; 2. Calling of help; 3. Saving of life; 4. Covering exposures; 5. Extinguishing fire; 6. Overhauling. How to test motor fire apparatus. How the following types of fires should be fought: Large department stores, large hotels and rooming houses, large area residential fires, combination stores and apartments, motion picture film exchanges, tall office buildings, wholesale grocery stores and warehouses, group building fires, theatres, schools, factories, etc., and considerable other data.

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A 152 page book, fully illustrated, by Fred. Shepperd, Managing Editor of FIRE ENGINEERING.

A complete course of instruction in fire department hydraulics. Designed to prepare fire department officers for hydraulic questions in examinations, such as required of all ranks.

Contains over 150 problems in fire department hydraulics asked in examination in New York, Chicago, Milwaukee, Seattle, Newark, and a score of other large cities.

Treats fully all departments of fire department hydraulics including pressure calculations, friction loss, engine and nozzle pressures, range of streams, capacities of engines, discharge from nozzles, hydrants, sprinklers, etc., etc.

Price $2.15 Postpaid

The 3 Books

have been read with pleasure and profit by firemen everywhere who have been ambitious to advance in the science of fire fighting. You will find them worth their small price many times over. Order yours now.

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Gentlemen: I am enclosing $.....money order (or check), for which please send me the following:

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.....Copies of "Questions and Answers for Battalion and Deputy Chief" at $2.15 each.

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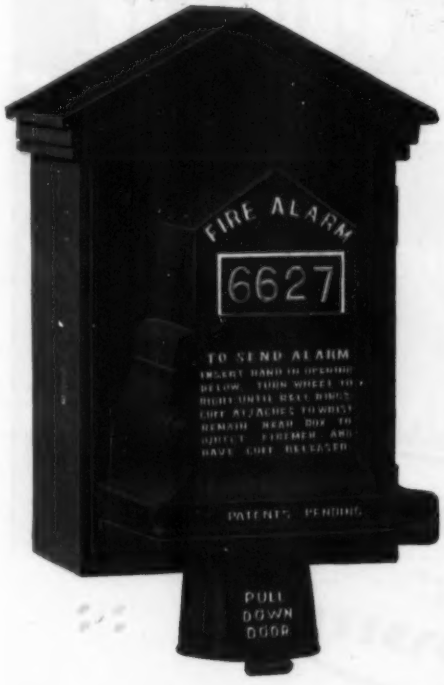
STOP FALSE ALARMS

By Catching the Culprit!



EVERY FIRE CHIEF KNOWS

that many lives of firemen and citizens have been sacrificed, many permanently disabled, and much property destroyed because of the "Box Puller."

The enormous cost to the City by responding to False Alarms means nothing to him. In following his bent to pull false alarms **he is dangerous to the community.**

Will the ringing of a Bell, or the sounding of a Siren, or the flashing of a colored light, deter the "Box Puller," or will his "enjoyment" be increased by the additional "excitement" created?

FIRE CHIEFS especially, and CITY OFFICIALS generally, want the false alarm sender **caught and punished. NOTHING ELSE WILL ELIMINATE THE FALSE ALARM EVIL.**

THE "FEDERAL DOOR" attached to City Fire Alarm Boxes is a device to positively STOP FALSE ALARMS. It operates instantly, and simultaneously releases a cuff on the wrist of the alarm sender. The trip-off wheel is guarded against operation by either a stick or any other instrument.

No inconvenience to legitimate sender. Rather, a badge of honor. He enjoys the distinction of having sent in the alarm. BUT, how different with the "Box Puller." He is "tagged" with a positive identification. He is cured. He will never again pull a box guarded by **The "Federal Door."**

Tried out successfully in East St. Louis, Ill., for over eighteen months. **Only one false alarm in that period from the boxes so guarded.**

Far-sighted Chiefs everywhere will want information on our positive acting crook-proof "Federal Door." Write us.

Departments should equip their Fire Alarm Boxes with our Federal Cuff-Attachment Door. Attaches to any type box. Built to last many years. Each False Alarm stopped saves your city considerably more than the cost of a single installation. Figure that out for a 10-year period. You will be amazed at the amount you can save.

THE FEDERAL ALARM EQUIPMENT CORPORATION

Mercantile Library Building
Cincinnati, Ohio

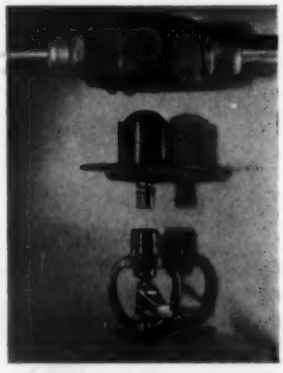
There is no more worthy an ERA project today than that of providing automatic fire alarm protection for all classes of municipal, county, state, and Federal buildings. Each year hundreds of such public buildings are destroyed by fire at a loss of hundreds of thousands of dollars.

There are two types of fire hazards in public buildings that make automatic fire alarm protection doubly important: (1) the *life* hazard in schools, hospitals, institutions, prisons, etc., and (2) the hazard to irreplaceable records and property that exists in city and town halls, court houses, state capitols, registries, libraries, and museums, which house such records as births, marriages, divorces, deeds, taxes, finger prints, criminal photos, as well as book and art collections.

The Gamewell SPRINK-LA-STAT Automatic Fire Alarm System provides an effective and economical protection for these buildings. It can be installed in such a manner as to automatically discover a fire while it is still small and sound an alarm on local warning bells or horns. And, where the property to be protected is located in a city having a municipal fire alarm system, the SPRINK-LA-STAT System can be connected *directly* with fire headquarters through a Gamewell *Master* Type Municipal Fire Alarm Box, so as to automatically call the municipal fire department to the building so protected, should a fire break out.

SPRINK-LA-STAT Automatic Fire Alarm Systems can be installed as ERA projects and are of more permanent value to a city than many projects such as brush clearance, etc. Don't fail to make provision for such projects when planning ERA activities. Shall we send you literature on the SPRINK-LA-STAT System?

THE GAMEWELL COMPANY
NEWTON, MASSACHUSETTS



NO WATER

—is used with the SPRINK-LA-STAT System. It is entirely an automatic fire alarm system that uses for its thermal element the famous Rockwood figure-4 sprinkler head—more than 12,000,000 of which are now in service.

FIRE ENGINEERING

The Journal of the Fire Protection Profession

Volume 88 MAY, 1935 Number 5

With the Editor

Shorter Day for Firemen, But Not for the Chief

As reported in the April issue of FIRE ENGINEERING, Montana recently passed a state law making obligatory the adoption of three platoon plan in Fire Department of all first class cities of the state. Second class cities, too, may adopt it, but only through authorization by local ordinance. The law takes effect on July 1.

That the fire service will eventually be three-platoon throughout the forty-eight states is a foregone conclusion. The action of the Montana legislature is but the straw which shows the direction of wind.

There are several unique provisions in the bill. In the first place, members of the department are not permitted to carry on any "outside occupations." There shall be no reduction in salary upon institution of the three platoons. The minimum salary shall be $1,800 per year.

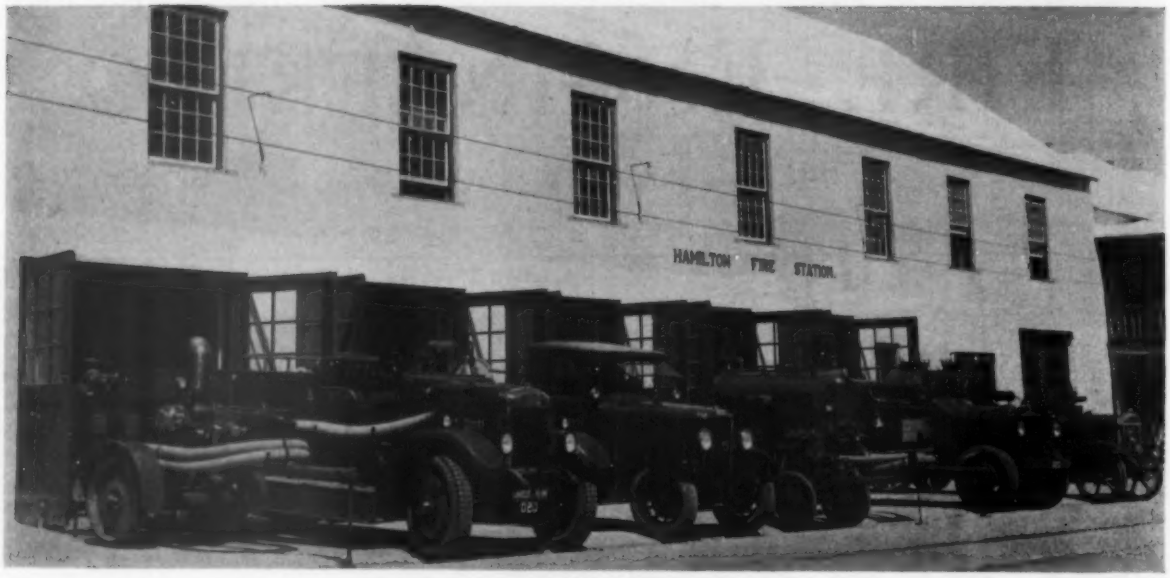
But of paramount interest to Fire Chiefs is the provision that cities "shall divide all members of the paid Fire Department, except the Chief thereof, into platoons of three shifts."

In other words, the three-platoon law does not apply to the Chief of the Department. He still remains under the old system of what amounts to continuous duty. He is on call at all times. The unreasonably long hours of service, which resulted first in two platoons and now in three platoons in the state of Montana, is considered all right for the Chief, but the men apparently are deserving of better treatment.

If the actual hours of duty were taken into account, the Chief of the department would be receiving far less than the per-hour rate of the rank and file.

It behooves Fire Chiefs, now that the three-platoon movement has started, to be prepared to look after their own interests when three-platoon laws are to be enacted, unless they are willing to continue the long day plan under which they are now operating.

Fred Shepperd



Fire Headquarters, Hamilton, Bermuda, with Apparatus Lined Up in Front

From left to right—1, pump on trailer; 2, "Uncle John," British pumper; 3, truck carrying hose; 4, one of the "Cockroaches"; 5, large booster tank; 6 foam truck, and one of the "Cockroaches."

How Hamilton, Bermuda, Fights Fires

This article has been written with the thought that American volunteer departments might be interested in the methods used by the Hamilton Brigade, when confronted by problems of water supply, districts not readily accessible to fire apparatus and restricted funds for operation and equipment. Where the problems are not too widely dissimilar, they may find suggestions which would be pertinent to their own organizations.

By DONALD HOLBROOK,
Civilian Aide to Chief of Newton, Mass., Fire Department

LYING in the broad Atlantic, some 700 miles southeast of New York, the Islands of Bermuda are in the same general latitude as Charleston, S. C. Blessed with a temperate climate and much natural beauty, Bermuda has become the vacation land for many thousands of Americans, who, in season, crowd her hotels and add to a bicycle traffic that is not without its humorous mishaps. Automobiles are strictly taboo, the only exception being the apparatus of the Fire Brigade and a few trucks used by the Government and the City Corporation.

Most Buildings of Coral Formation

The coral formation of the island affords an excellent substance for building, which, when cut in blocks, is easily fashioned into walls of solid masonry. With only a few exceptions, all buildings are made from this material, and the hazards of fire are, therefore, measureably reduced.

Like the shipwrecked sailor adrift on a boundless sea, Bermudians must look to Heaven for their fresh water. The corrugated roofs of store and residence alike, carefully slaked with lime, gather the precious raindrops and guide them into storage tanks which must be both reserve and supply.

Hamilton's Waterfront

Nearly half-way between St. George's, the islands extremity on the north, and the Navy Yard which guards the southern flank, and nestled at the end of a perfect harbor, the city of Hamilton welcomes the visitor from the great ships which come to lie along her generous waterfront. The capital and centre of activity, Hamilton caters to the Island's population of thirty thousand permanent residents. More of the old world than of the new, its stores and offices look up to the large hotels which command its approaches and gather from each other an atmosphere of quaint charm.

And now, on Hamilton's waterfront, nearly twelve

miles from either end of the island, we reach the first objective of our story—the headquarters of the Fire Brigade.

Great Ship Fire Stimulated Efficiency

The Hamilton Fire Brigade was stimulated to its present form of high efficiency by the disastrous fire to the motorship "Bermuda" some five years ago, which found the Brigade with totally inadequate equipment. When the town fathers had recovered from their chills produced by a view of the roaring inferno at their city's door step, they admitted that even Bermuda could not expect to be totally exempt from the hazard of a fire of major proportions; consequently, great was the activity thereafter.

The Volunteer Fire Brigade

To understand the enthusiasm and alertness of the Brigade personnel, one must conjure with an interesting fact. The question before an able bodied male Bermudian is not why should he join the Brigade, but rather why take the risk of social ostracism by staying out of it. Like the little girl with the white feathers who, during the war years, made Trafalgar Square most uncomfortable for men out of uniform, the feminine element has played its part in building up the morale of the Fire Brigade. Doctors, lawyers, a Peer of the British realm, these Bermudian fire eaters are drawn from an interesting group.

There are roughly one hundred volunteers in the Brigade. Their only financial remuneration is a form of group insurance wisely taken out by the town fathers which protects each man to the extent of $5,000. A full time mechanic at headquarters and a station officer are the only ones to draw a salary. The five drivers assigned to the apparatus, who sleep at the station or only a stone's throw away, with their nominal retainer fees, comprise the only other liability for pay assumed by the city.

Officers of the Brigade

The Executive Officer of the Brigade, whose position resembles in authority that of the American Fire Commissioner, is directly responsible to the City Corporation. Under him in charge of operations there is a Chief Officer or Chief of Department. The personnel is divided into two divisions—each division in charge of a Deputy Fire Chief. Other officers attached to their respective divisions have titles of Wardens and Assistant Wardens, each Assistant Warden being in charge of a machine. The Harbor Warden, not attached to either division, is in charge of two Furness-Withy tugs, which can be called into action by a waterfront fire. An Instructor Warden is responsible for drills, maintenance, and other activities of the personnel. Besides the officers here mentioned there are approximatly forty-one men attached to each division.

The Fire Alarm System

There are roughly three thousand telephone users on the main island of Bermuda, and this provides an alarm signal system which has met existing requirements. The mechanic, station officer, as well as members of his family who reside at the station house, provides a constant telephone watch. Three blasts of the huge siren atop the tower at headquarters, besides awakening the dead, galvanize into action the loyal volunteers who come from hither and yon and in a surprisingly short time have manned the engines and rolled away. The officers and some of the men also have alarm bells in their homes, which are actuated simultaneously with the sounding of the siren. Four blasts of the siren, and all inhabitants know that there is a fire in the city proper.

I am still thrilled by the response of one Chief Officer the night of the Reid Hall fire, which is mentioned later on in my story, who, awakened by the first blast of the alarm, leaped from bed and onto his trusty bicycle. With gorgeous silk pajamas billowing in the soft night air and slippers soon lost, he reached the station in the remarkable period of one minute and a half and was in time to roll out on the second responding piece of apparatus.

The Fire Apparatus

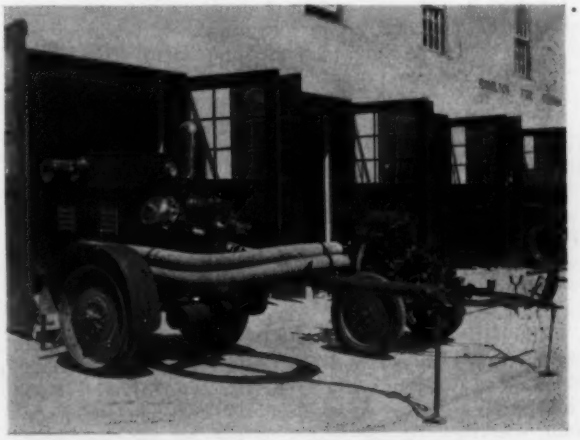
Most of the fire apparatus is of British manufacture, which is logical when one considers that it comes in free of duty. The pride and joy of the Brigade is "Uncle John." This is a 500-gallon-per-minute capacity pumper, powered by a 4-cylinder, 64-h.p. motor, geared to reciprocating pumps. This pumper carries 1,000 feet of 2½-inch hose and an additional 800 feet for the trailer which it tows. Of practical use only when able to draw from the ocean or from one of the ten city hydrants, "Uncle John" is not the first to roll, as his operations are severely restricted, when sea water is not immediately available and before the privately owned water supply tanks can be commandeered.

The first to roll for out-of-town fires is a truck carrying a 450-gallon water supply with a Booster pump and actuated by a 4-cylinder engine, which is in addition to the engine used to propel the truck. This booster pump has a capacity of 160 gallons per minute, and also carries four 2-gallon foam extinguishers on its rear platform. This piece of apparatus is ready to go into immediate action at the scene of a fire and is invaluable in isolated districts where minutes count double.

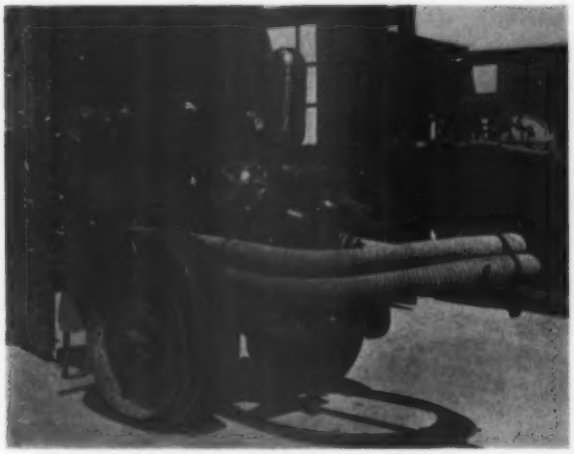
There are two other motor driven booster tank trucks which are either located at the station or quickly available for service.

The chemical engine, carrying the foam equipment and tanks of 300 English gallon capacity, is the first to respond to in-town alarms.

Next in line are the two trailer pumps, each of 275-gallon-per-minute pumping capacity. These small pumps are hung on a two wheel trailer frame which also supports the pumping engine—a 4-cylinder of 35 h.p.



Pump and One of the "Cockroaches"



Pump on Trailer

And now, last but far from least, are the two baby pumping engines which are mounted on two-wheel trailers, and in the case of one towed behind a truck, and in the case of the other carried conveniently aboard much as a steamer trunk might be handled. Best of all, these miniature fire engines go by the apt term of "cockroaches" and, in a sense, look the part. Weighing 800 British pounds and operated by a 2-cylinder high speed 14-h.p. engine, these little pumps can be pushed or carried into places hopelessly closed to the larger apparatus. They have a pumping capacity of 175 gallons per minute.

There is recorded that one of these machines was once lowered over a steep cliff in order to reach sea water, and from a risky perch sent its streams to a distant point, effectively extinguishing a menacing fire.

Reid Hall Fire

I have mentioned the Reid Hall fire, and here are a few high lights in this, the largest fire in Bermuda, since the disaster to the motorship which bore her name, and which paved the way for that fine exhibition of fire fighting which I was privileged to witness.

The night of the fire found the writer returning on the ferry from the Paget side of the harbor, which is across from Hamilton. Speculating on the beauties of the Hamilton waterfront I noticed heavy clouds of smoke rolling from a building on the rise above. Hamilton had a fire, and it was evidently a big one. Just about this time, or, to be precise, at 12:05 a.m., the siren at the station house sounded the alarm—four blasts—a fire in the city proper. The ferry was old and slow and the five minutes that passed before we made the dock seemed like hours. In the meantime, flames had broken through the roof and, fanned by a high wind, the fire was making great progress.

On landing I discovered that the moving picture theatre known as "Reid Hall" was entirely involved in fire. Two minutes after the sounding of the alarm the first piece of apparatus was rolling to the fire with its full complement of men. A minute later the second piece, and rapidly following, the others were on their way.

Although only five minutes had elapsed since the alarm, by the time I had reached Front Street, "Uncle John" was delivering water to the fire. The booster tanks were in operation and the two "cockroaches" humming merrily. At the height of the fire nineteen hose lines were in operation.

The Hamilton Fire Brigade deserves great credit for the stop they made that night. The fire was confined to the building of origin, which was completely gutted. With the high wind the fire, if unchecked, could easily have swept the city, particularly as there was located in adjoining buildings large amounts of inflammable liquids. An hour and a quarter and the fire was theirs. My hat is off—they are real firemen, these Bermudian fire eaters.

Signal Men to Convene

An open convention of all persons interested in Municipal Fire Alarm, Police Signal, and Traffic Signals will be held in Poughkeepsie, N. Y., June 20, 21, 22, under the auspices of the Associated Municipal Signal Services and its group members, the signal associations of New England, New Jersey, and New York.

An invitation is extended to all Municipal Signal Superintendents, Fire and Police Chiefs and Commissioners, and their wives to attend this convention. A well balanced program has been planned, with talks on modern equipment, its proper installation and care, by factory engineers and municipal superintendents, exhibits by the leading manufacturers, and a discussion of every day problems in this field.

The Associated Municipal Signal Services is an organization formed to advance protective signaling; devoting particular attention to municipal fire alarm procedures, equipment and development. Its growth in the past few years has been amazing and at the Poughkeepsie meeting representatives from Maryland, Pennsylvania, and the west coast are planning to attend for the purpose of forming similar associations.

The A. M. S. S. publishes the *Municipal Signal Journal*, quarterly, which contains not only the complete convention records but working solutions of scores of problems encountered in actual service. The publication is proving of value to the men engaged in the signal field.

Volunteer Firemen's Compensation Law

Sponsored by the Western States Firemen's Association, Chief Frank Province, Camas, Wash., President, a compensation law with very liberal provisions for volunteer firemen injured in line of duty, or their widows and orphans in event of their death, becomes effective in the State of Washington, June 14, 1935. The law creates a fund in the State Treasury known as the Volunteer Firemen's Relief and Compensation Fund, the fund to consist of fees, gifts and donations; an annual fee of two dollars to be paid by the city for each volunteer fireman, each volunteer fireman to pay an annual fee of one dollar; and ten per cent of all monies received by the state from tax on fire insurance premiums. Revenues are estimated to produce approximately $30,000 annually.

The law sets up a Board of Trustees in each city, consisting of the Mayor, City Clerk, one Councilman, the Fire Chief and one fireman elected by the firemen, with full authority to administer the law. The board is empowered to employ a physician to examine firemen entering the service and to render surgical and medical aid to volunteer firemen. Whenever any volunteer fireman shall become physically disabled as the result of his duty as a fireman by external violent means, so as to be unable to perform each and every duty of his regular occupation or business; he shall be paid from such fund the sum of $100 per month for a period of six months, and thereafter, $75 per month so long as such disability continues.

In event of his death in line of duty, his widow receives $50 per month so long as she lives and remains single, or if there be no widow, then his children receive the same until they become 18 years of age.

When hospitalization is necessary, the fund pays $20 per week for 26 weeks, and in event of death, $100 funeral expense is paid. All disbursements from the fund are made on order of the Board of Trustees by warrant on the State Treasurer. Membership of volunteer Fire Departments is limited to twenty for each one thousand of population and the benefits of the law are available to the members of any Fire Department not employing its entire membership on a full time paid basis.

ROBERT B. ROGERS.

The Setting for What Has Been Termed the Meanest and Most Stubborn Fire in the History of the New York Fire Department
The six miniature Niagaras flowing from the street, as shown in the right foreground, are indications of the vast amount of water used in fighting this warehouse fire.

5-Alarm Fire Burns for 56 Hours

By WM. JEROME DALY

NEW YORK CITY firemen experienced one of the worst battles they have had to contend with in many years, when fire raged for two and a half days, in a warehouse on the Brooklyn waterfront at the foot of Clark Street, East River. The location is fifty feet below the fashionable Old Columbia Heights section of Brooklyn, with the Hotels Bossert, St. George, Margaret and the Towers overlooking the warehouses. The first alarms was at 12:01 p.m. Saturday, April 20 and the first due engine company "took-up" on Wednesday, April 24.

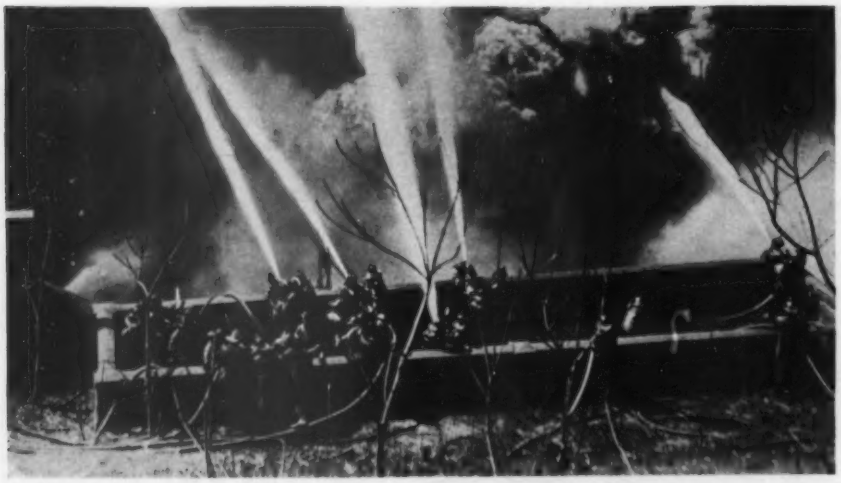
Description of Building

The warehouse was one of a series along the waterfront between Fulton and Montague Streets, each divided by party walls. The fire was in Warehouse No. 38, which is 56 x 169 feet in area, extending from a belt-line wharf street back to Furman Street. The building was of brick construction, five stories high, windows and iron shutters on front and rear, and had unprotected wooden floor beams and sleepers. It was occupied on the ground and second floors only. The occupied floors contained 9,239 cases of crude rubber packed in burlap sacks, encased in wooden boxes, and weighed 245 pounds each. The warehouse also contained 700 rolls of porous or absorbent paper—the kind used to insulate the interior of freight cars. There were no doors or companionways from adjoining warehouses. The warehouse was not heated. No electric lights were burning nor was any one within the building—not even the watchman. His job was outside. The weather was unusually balmy for that time of spring and it was one of the most inviting out-of-doors days of the season.

No goods had been received or shipped that day. The rubber had been stored there eighteen months and the paper for several months. The warehouse was minus sprinklers, thermostatic alarm, and a cellar.

The warehouses, built about seventy years ago, are owned by the New York Dock Company. The watchman had been in the employ of the company for a year and a half. He was one of sixteen watchmen who had been notified two days before of a lay-off due to economy. The dock company had a total of seventy watchmen. This is mentioned only for its incidental news value and is not to be taken as in any manner reflecting on any of the watchmen.

The watchman on duty had several warehouses to guard. One of the warehouses (No. 42) contained the furnaces or boilers with which the dock company heated its properties. At about 11:30 a.m. the watchman had to leave his post to slice the fires. At about 11:45 he started to lock up for the day. His recollection is that he locked No. 38 at about 11:50 a.m. His immediate boss was with him when he locked up. This watchman is about 37 years old.



Before a High Pressure Line Rebelled

Six companies are shown working on a terrace beyond the foot of Clark Street. Five lines of hose lead to hydrants on Brooklyn Heights, while the second from the left is supplied by a high pressure hydrant of 125 pounds pressure.

While locking up another warehouse 100 feet away from No. 38, a dock hand yelled to him that smoke was issuing through the doors of No. 38 (there were three doors). With another boss or superior, he ran back to No. 38, but in his excitement he gave the keys to his boss who opened the door for him. The two men were met with acrid smoke and heat and were unable to enter. They were likewise unable to tell just where the fire was located. The point of origin and the cause are still undetermined. Then somebody yelled "close the doors until the firemen come." This was done, while a workman snapped an N.D.T. box on the outside wall of the warehouses at 12:01 p.m., or about ten minutes following the closing and locking of the warehouse doors at which time, the watchman relates he observed nothing unusual.

The alarm brought three pumpers, two trucks, a salvage company, a Battalion Chief and a Deputy Chief. When the firemen opened up the heat was terrific and they advanced their lines no further than fifteen feet inside the doors. This position they held for a comparatively short time and all hands were ordered to "back-out." The second alarm was at 12:11 p.m. In the interim other companies were opening up the rear on the Furman Street side. A backdraught then occurred and scores of fire fighters were painfully burned and temporarily blinded. All hand lines were lashed as the attack continued. Firemen were mystified by the rapidity with which the fire traveled through the building. The third alarm was at 12:13, the fourth alarm at 1:01 and the fifth alarm at 1:15 bringing Fire Chief McElligott from his home in the Bronx.

At 2:30 oclock, a master alarm was sounded by Assistant Fire Chief David J. Kidney to call help from across the Brooklyn Bridge in Manhattan. The signal looks like this: 5-5—482—1. When sounded in Manhattan, it looks like this: 7-7—5-5 — 482 — 1. (The 7-7 means that the call is from Brooklyn.) This brought four pumpers and a truck from lower New York. At 3:26 the second master alarm was sounded, to wit: 5-5—482-2, or as it appears on a Manhattan register: 7-7—5-5—482-2. The fight was waged under severe handicaps of heat and smoke. The fire burned through the third, fourth and fifth floors and the roof, all of which collapsed.

In the rear, Clark Street runs toward the river, but is suddenly dead-ended on the Columbia Heights level overlooking the warehouse. The end of the street is supported by a wall of granite and a coping which is at about the level of the third floor of the warehouse. This parapet formed a natural fighting deck equivalent to a water tower level and from that point many heavy streams were directed into the Furman Street windows. It was difficult to get these windows opened because of the security of the iron shutters. Many firemen were precariously perched atop extension ladders while attempting to open these shutters.

Immediately behind the parapet, the vacant area is used for the advantages of its light, air and access. In the midst of this area is a ventilating shaft leading down into the Clark Street tunnel of the Interborough-West Side (7th Avenue) subway. The normal function of this shaft and its fans is to draw air into the tube. In

After the High Pressure Line Swirled Out of Control

In the maelstrom that resulted when this high pressure line went out of control, thirty-five firemen were swept off their feet, and one received a fractured skull. The concrete enclosure is the roof over the subway ventilating shaft. Note injured men at left.

this particular instance considerable smoke was drawn into the subway tunnels. Subway operating officials were notified by Chief Kidney at 1:04 p.m. to shut the ventilators, but several trains had dashed through the smoke forty feet under the river with the result that many passengers were affected, most of them from panic.

On the Manhattan side of the river a box was pulled which brought firemen at the station nearest to the river front at William and Wall, to assist many persons out of the tubes. The subway ventilator fans were then reversed but it was too late. By that time the train service had been halted. At 1:49 p.m., Batt. Chief Comiskey, of the 1st Battalion, ordered all emergency exits opened on the Manhattan side from the river front to Maiden Lane. This gave partial relief and helped considerably to allay the apprehension.

Apparatus at Scene

Tons of water seemed ineffectual as the fire raged. Chief McElligott was his old self again and was ably assisted by Chief David J. Kidney, who was in charge of the department that day, and also by Assistant Chief George L. McKenna and Deputy Chief Joseph O'Hanlon, of Brooklyn. The battle was carried on with twenty-nine engine companies, eight ladder trucks, two rescue companies, three towers, four fireboats, two searchlights, two gasoline-oil fuel trucks for apparatus supply, three Battalion Chiefs, two Deputy Chiefs, two Assistant Chiefs of Department, the Chief of Department, and about 350 firemen. Twenty engine companies, nine ladder trucks, one rescue company and three fireboats changed location to cover up.

Foam Powder Used

On Sunday, April 21, most of the Manhattan fire companies were released by Assistant Chief Patrick Walsh and Deputy Chief John Davin, who came on duty. The spectacle continued and furnished a Sunday afternoon sight-seeing matinee for many thousands of motorists and others. It was not until Monday night, April 22, when four and a half tons of fire foam had been dashed from front and rear positions into the blazing and smoking warehouse, that anything like complete extinguishment was accomplished. Most of the foam was supplied by the Standard Oil Company which has an emergency foam truck in readiness at all times at its Greenpoint oil works. The fireboats and the rescue companies furnished about one-quarter of the 4½ tons of foam.

Here Is Hose That Has Outlived Its Usefulness

Damaged hose is being carted to the department repair shop for inspection. These are the lengths that were unable to withstand the pressure to which they were subjected; also lines damaged otherwise. Note truck load in background.

An Indication of the Large Volumes of Dense, Black, Acrid Smoke Generated by the Contents of the Burning Warehouse

Foam Proves Effective

The attack by the foam method had long been deliberated by Chief McElligott, but it was not humanly possible to maintain firemen in the inferno. With the collapse of the floors, the heat subsided considerably. Then four foam lines—two on the waterfront side and two on the Furman Street side were stretched into separate windows and firemen were stationed inside the building.

These four foam lines were directed into the burning mass. It was difficult in places to reach the fire which was covered over by the collapsed stock and fallen floors, but it was two or three hours before the firefoam reached sufficient of the burning mass to call it "out."

The total length of time recorded before the fire was officially declared "out" is given as 56 hours and 16 minutes. The fire was fought with the aid of three streams from each of three towers; thirteen wagon pipes, seventy-five portable lines and four fireboats with a total of thirty-four lines to towers, deck pipes and hand lines, in addition to the firefoam.

Large Volume of Water Used

Approximately 29,000,000 gallons of water were used. The high pressure pumping station, two blocks distant, opened up on receipt of the special building box with 125 pounds, raised the pressure to 150 at 1:07 p.m. 200 pounds at 2:07 p.m. and reduced it to 185 at 3:23 p.m. High pressure was finally shut down at 8:17 p.m. on Monday, April 22. The high pressure system operated fifty-six hours and sixteen minutes and supplied 8,281,000 gallons to thirteen lines. The low pressure system supplied nine pumping engines which delivered 468,700 gallons. The fireboats delivered 19,995,960 gallons of river water.

The fire never extended beyond the four walls of Warehouse No. 38. The smoke however did considerable damage to coffee cargoes in adjoining warehouses. For some chemical reason or other, it seems that smoke from burning rubber has a peculiar affinity for coffee

and it is estimated that the damage to coffee stocks will be heavy.

The building and contents were insured and it is estimated that the loss will be around $400,000. There were approximately 732 treatments of members of the department by Fire Department Medical Officers and hospital internes. These were principally for burns, inflamed eyes, lacerations, bruises, etc. There were no injuries of any magnitude, excepting one fireman who is still in the Holy Family Hospital, Brooklyn, recovering from a fractured skull. He was holding a high pressure line with 200 pounds pressure in it. The hose line somehow got loose and gave most persons a hasty retreat. Fire Chief McElligott however picked up a 20-foot ladder and holding it in front of him, he did a "belly-wop" clamping the frisky hose line to the pavement. In this he was joined by Chief Kidney and Chief O'Leary and two firemen who piled on. The line was recovered but Fireman Miller was injured.

About 320 firemen were granted temporary sick-leaves. So many firemen were temporarily non-combatant that it was necessary to summon extra men without apparatus. This was done as follows:

At 5:30 p.m. April 20, thirty men were called from companies in the 3rd, 4th and 5th divisions in Manhattan. At 11:37 that night, forty men were called—twenty of them from the lower end of Manhattan and twenty from the 12th and 13th divisions of Brooklyn and Queens. On Monday morning at 10:35 o'clock, fifty firemen were called from six different divisions. The call for firemen without apparatus is like this: 3-3-3—482—3—10, which means ten men from the 3rd division to respond to box 482.

Chief Fire Marshal Thomas P. Brophy and his staff are still carrying on an investigation. Many witnesses, chiefly the employees of the warehouse company were examined and their testimony recorded.

The Fire Patrol spread 72 covers in adjoining warehouses. The fire drew ambulances from six Brooklyn Hospitals and Police Emergency Squads from five police districts. Smoke caused considerable damage to fire apparatus. The burning rubber melted and in addition to throwing off a carbon smoke that made every fireman look like a minstrel show performer, it blackened every piece of fire apparatus, appliance, tool and device. The water that flowed out of the burning building carried on its surface a film of gum that clung like a leech to everything it touched.

It was the dirtiest, the meanest, and one of the most stubborn fires that this reporter has attended in many years observation of the New York Fire Department.

Maine Chiefs Meet at Rumford

Speakers at the meeting of the State Association of Fire Chiefs of Maine, held in Rumford on April 9, were James McMennimen, Chairman of the Rumford Board of Selectmen; Chief Joseph W. Randelette, Richmond, Me.; Chief Selden R. Allen, Brookline, Mass, Past-President of the International Association of Fire Chiefs; Chief Daniel B. Tierney, of Arlington, Mass., Past-President of the New England Association of Fire Chiefs, and S. E. Patrick, of the Maine Board of Education. Fire pictures were shown by Alton Hall Blackington, Boston. Chief Soloman A. Mercier, of the Rumford Fire Department, presided. There was a luncheon in the Central Fire Station at noon and after the meetings the Chiefs went on a tour of the paper mill in the town. The concluding features were a banquet at the Hotel Harris and a round table discussion.

HARRY BELKNAP.

FIRE DEPARTMENT SALARIES RESTORED IN MANY CITIES

Municipalities Throughout the Country Increase the Pay of Members of Fire Departments, Restoring Cut Previously Made

INCREASES in salaries of fire fighters, over those paid in 1933, have been put into effect in the following cities, according to the *International Fire Fighter* for April. A number of the salary restorations were made in 1934, and in a number of cases partial restoration was made in 1934 and the balance in 1935. Where not possible to show the exact amount of increase over 1933 salaries, this is indicated by an asterisk (*).

Birmingham, Ala., 11 per cent; Florence, Ala.*
Little Rock, Ark., 10 per cent; North Little Rock, Ark., 8 per cent.
Bakersfield, Cal., $60 per year; Berkeley, Cal., 10 per cent; Oakland, Cal.*; San Diego, Cal., 12½ per cent; San Francisco, Cal.*
Pueblo, Col., 11 per cent; Boulder, Col., 5 per cent.
Bristol, Conn., 2 per cent; New Britain, Conn., 12½ per cent; New Haven, Conn., 5 per cent; Waterbury, Conn., 5 per cent.
Washington, D. C., 15 per cent.
Jacksonville, Fla., 5 per cent.
Brunswick, Ga., 10 per cent; Macon, Ga., 10 per cent; La Grange, Ga.*
Boise, Idaho, 10 per cent.
Aurora, Ill.*; Centralia, Ill.*; Chicago, Ill.*; East Moline, Ill.*; East St. Louis, Ill., 15 per cent; Elgin, Ill., 10 per cent; Kankakee, Ill., 10 per cent; Moline, Ill.*; Rockford, Ill., 15.6 per cent; Rock Island, Ill., 5 per cent; Springfield, Ill., 5 per cent.
Anderson, Ind., $60 per year; Kokomo, Ind.*; Muncie, Ind., 10 per cent.
Cedar Rapids, Iowa, 5 per cent; Iowa City, Iowa, 10 per cent.
Coffeyville, Kan., 5 per cent; Newton, Kan., 10 per cent.
Louisville, Ky., 5 per cent.
Bogalusa, La., 10 per cent.
Baltimore, Md., 7 per cent.
Arlington, Mass.*; Boston, Mass.*; Chelsea, Mass., 5 per cent; Dedham, Mass., 10 per cent; Fitchburg, Mass., 5 per cent; Gardner, Mass., 5 per cent; Holyoke, Mass., 5 per cent; Lawrence, Mass., 5 per cent; Leominster, Mass., 5 per cent; Medford, Mass., 5 per cent; Peabody, Mass.*; Quincy, Mass.*; Springfield, Mass., 10 per cent; Watertown, Mass., 10 per cent.
Waterville, Me.; $36.50 per year.
Albion, Mich.*; Bay City, Mich., 10 per cent; Detroit, Mich.*; Hamtramck, Mich., 10 per cent; Highland Park, Mich., 10 per cent; Ironwood, Mich., 10 per cent; Jackson, Mich., $180; Kalamazoo, Mich., 6 per cent; Lansing, Mich., 7 per cent; Pontiac, Mich., 10 per cent.
Duluth, Minn., 6⅔ per cent; Rochester, Minn., 5 per cent; St. Paul, Minn., 10 per cent.
Columbus, Miss., $120 per year; Jackson, Miss., $120 per year; Greenville, Miss., 10 per cent.
Hannibal, Mo., 5 per cent; St. Joseph, Mo., 10 per cent; St. Louis, Mo., 10 per cent.
Butte, Mont., 5 per cent; Missoula, Mont.*
Berlin, N. H., 10 per cent; Concord, N. H., 5 per cent; Manchester, N. H.*
West New York, N. J., 10 per cent.
Gloversville, N. Y., 7 per cent; New Rochelle, N. Y., 5 per cent; Binghamton, N. Y., 2½ to 5 per cent.
Greensboro, N. C.*; High Point, N. C., 10 per cent; Raleigh, N. C.*; Winston-Salem, N. C., 10 per cent.
Akron, Ohio, 10 per cent; Chillicothe, Ohio, 7 per cent; Cincinnati, Ohio*; Cleveland, Ohio*; Cuyahoga Falls, Ohio, 25 per cent; Hamilton, Ohio, 5 per cent; Lorain, Ohio, 5 per cent; Marion, Ohio, 20 per cent; Mansfield, Ohio*; Massilon, Ohio, $60 per year; Niles, Ohio, 25 per cent; Rocky River, Ohio*; Springfield, Ohio.*
Enid, Okla., $60 per year; Shawnee, Okla., 10 per cent.
Allentown, Pa., 10 per cent; Erie, Pa., 10 per cent; Johnstown, Pa., 15 per cent; McKeesport, Pa., 15 per cent; Philadelphia, Pa., $365 per year; Sharon, Pa.*.
Woonsocket, R. I., 11⅓ per cent.
Columbia, S. C., 5 per cent.
Chattanooga, Tenn.*; Knoxville, Tenn., 10 per cent.
Beaumont, Tex., 8⅓ and 16 per cent; Cleburne, Tex.*; Dallas, Tex., 4 4/5 per cent; El Paso, Tex., 5 per cent; Laredo, Tex.*; Galveston, Tex., 5 per cent; Port Arthur, Tex., 10 per cent; San Antonio, Tex., $180 per year; Tyler, Tex.*
Provo, Utah, $600 per year.
Danville, Va., 5 per cent.
Rutland, Vt., 10 per cent.
Seattle, Wash., $432 per year; Spokane, Wash., 10 per cent; Yakima, Wash., 5 per cent.
Charleston, W. Va., 10 per cent; Clarksburg, W. Va., $120 per year; Huntington, W. Va., 10 per cent; Morgantown, W. Va., $60 per year.
Appleton, Wis., 5 per cent; Beloit, Wis., 7½ per cent; Eau Claire, Wis., 10 per cent; Janesville, Wis.*; Kenosha, Wis., 15 per cent; Superior, Wis., 8 per cent; Wausau, Wis., 10 per cent; Wauwatosa, Wis., 10 per cent.
Casper, Wyo., $60 per year.

Canada

North Vancouver, B. C., 11 per cent.
Brandon, Manitoba, 10 per cent; Winnipeg, Manitoba, 3 per cent.
Kingston, Ont., 10 per cent.
Three River, Que.*; Westmount, Que.*

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

PREVENTING THE BLOCKADE OF FIRE APPARATUS

WITH a screech that is terrifying, the bright, shiny pumper goes rushing down the street. At the corner the traffic officer is frantically waving motorists to the curb to give a clear lane for the firemen.

On the sidewalk, the small, wiry man, wearing gold-rim spectacles, looks at the firemen and sighs. If only he were on the apparatus, then he, too, could experience all the thrills of so glamorous a profession as fighting fires. He snatches at his bottle of milk with a more determined grasp, and goes on his way.

Not so the motorists. Why should they be deprived of the thrills, even though they do not belong to the department. The moment they can get their cars started, they are on their way, racing towards the fire, scarcely a car's length behind the apparatus. There is an added thrill in being able to say that they beat the firemen to the fire.

It is these racing motorists who endanger the lives of the firemen and who prevent the apparatus from approaching the most strategic spot near the fire in the least possible time. Various ways have been tried to appeal to the community's sense of good citizenship, but without avail. Now many cities are resorting to the strong arm of the law. Offending persons are brought to court and fined, while second and third offenders are dealt with more severely.

The problem in full that is discussed in this issue, is printed in the box on this page. Due to the large response, the discussion on this subject will be continued in the next issue. If you have some experiences that you would like to add, write to the "Round Table Editor," FIRE ENGINEERING, 24 West 40th Street, New York, N. Y.

Discussion of the Question

C. B. Bradford, Chief, Rome, Ga.: Our Police Department has recently installed a short wave radio system and receives all street box alarms at their headquarters, thus enabling them to send a squad car to the scene of a fire at about the same time the fire apparatus arrives. The officers then turn all traffic off and around the block in which a fire has occurred.

We have a city ordinance prohibiting any unauthorized persons from going into the fire area, and providing a maximum penalty of a $500 fine for violators. So far, we have had excellent co-operation from all the city officials in enforcing this ordinance.

W. S. Mason, Chief, Bangor, Me.: In our city we were bothered by motorists so much at fires that a couple of years ago we installed a silent alarm arrangement on our outside bells. Three or four minutes after we receive the alarm at the station, and the apparatus has responded to the fire, we sound the alarm on the outside bells. This arrangement allows our apparatus to get to the scene of the fire before the motorist.

The Police Department responds to all of our box alarms, in fact the police ambulance with officers arrive right after we do with the apparatus. I cannot speak too highly of this arrangement. The Fire Department gets excellent police protection, giving us an opportunity to work.

To stop this practice of the "fire bug motorist," the best suggestion I can think of is for the Police Department to start picking them up and bringing them before the court. Place a small fine on them for the first offense, increasing the fine if they persist in chasing the fire apparatus.

All of my drivers of apparatus have orders to take the license number of any automobile that gets in the way while the apparatus is on its way to a fire, or any automobile that tries to pass or race the apparatus. For the last few months we have not been bothered with this type of motorist.

Harry L. Ridout, Chief, Muskegon Heights, Mich.: The sight of flame and smoke, the sound of sirens and the sight of speeding fire apparatus seems to hold more interest for the average motorist than free beer on a sunny afternoon. Psychologist can explain why motorists swarm in to the scene of a fire, but they are powerless to stop it. For that reason we depend on the Police Department to help curb this evil.

In this city all alarms are broadcast by radio to police cruisers. They respond and clear the area in the immediate vicinity of a fire if the size of the fire warrants this action. In the event of small blazes they permit traffic to move, but keep it moving. Some arrests have been made, but the public still attend all fires, if possible.

My suggestion is to continue making arrests of violators, and give these cases ample publicity in the papers as a warning to others. Many people fear publicity in some of their actions, and the resultant notoriety when given a summons for crowding in on apparatus at a fire may be helpful.

H. A. Purden, Sr., Chief Fire Dept., San Bernardino, Cal.: We have an ordinance prohibiting the parking of vehicles in the same block that firemen and apparatus are performing their duty. We also receive very good cooperation from the Police Department. Immediately after an alarm of fire has been received and apparatus has been dispatched, the fire alarm operator notifies the Police Department by their radio station. They dispatch radio patrol cars and radio motorcycle officers who are generally on the job as soon as the apparatus, to handle the traffic about the scene of the fire.

We are not bothered very much by drivers following too close to the rear step of fire apparatus responding to fires, nor by drivers blocking our streets about the fire due to the above mentioned cooperation. It is necessary to arrest offenders very seldom, because usually one good warning from the

HERE IS THE PROBLEM

What means have you established to prevent motorists from converging to a fire area, and thereby blocking the approach of fire apparatus?

Do policemen respond with the apparatus to arrest offenders, and if so, what has been the result?

Have you any suggestions for eliminating this evil?

officers is sufficient. The evils of motorists racing after fire apparatus, or blocking fire fighters and apparatus at fires can be eliminated to a greater degree if the Police and Fire Departments are brought closer together in the line of duty. My method to induce this is in keeping both departments working harmoniously at all times. I have found their services to me to be of great value in times of trouble.

W. C. Watters, Chief, Oak Park, Ill.: The means we have established to prevent motorists from converging to a fire area is by having police squads notified by radio, and three police squads respond to the fire and take their post at intersections of the block in which the fire occurs. This thereby prevents traffic entering said block from any direction.

The police ambulance from headquarters follows fire apparatus on all firm alarms. It is also a general practice for motorcycle policemen to follow on fire alarms and keep traffic in its proper regulations.

It is suggested that citizens who violate traffic rules trying to follow fire apparatus to alarms of fires, be placed under arrest. First offenders should be warned of the dangers and shown the great importance of not hindering the Fire Department in any way. For a second offense they should be fined, and publication of such made in the local papers to discourage the public from such a practice.

Walter F. Israel, Chief, Detroit, Mich.: The following was published in a Detroit newspaper on February 5, 1926:

"The future is to be dark for 'fire chasers' and all of that species of motorist which revels in following Fire Department apparatus, Police fliers and ambulances. An ordinance making hard the way of the transgressor in these things takes effect February 5, 1926.

"As the result of frequent accidents in which the Police and Fire Department vehicles were involved with the automobiles of private citizens, taxicabs, etc., the Council passed an ordinance December 29, 1925, at the behest of the several departments, which amends the traffic law by adding the following sections:

"Section 30. On the approach of any vehicle or apparatus of the Fire Department, Police Department, or an ambulance of any hospital answering emergency calls and sounding a siren or bell, the driver of any vehicle other than the aforesaid mentioned shall immediately drive as closely as possible to the right hand curb and stop, and shall not follow after the said vehicle or apparatus until the same shall be at least 500 feet away.

"(a) No vehicle other than those of the Police Department, Fire Department or ambulance of any hospital except by direction of the officer in charge of the Fire Department shall approach or park within 600 feet of any fire apparatus responding to an emergency call after said fire apparatus shall have come to a stop.

"(b) It shall be unlawful for any person, except a person connected with a duly constituted Fire or Police Department to drive at any excessive rate of speed to any fire, or to race with any fire apparatus to any fire.

"(c) Any person who violates or fails to comply with any provision of this ordinance, shall, upon conviction, be subject to a fine of $100, or to imprisonment in the Detroit House of Correction for a period not to exceed 90 days, or to both such fine and imprisonment at the discretion of the court.

"'The ordinance was made necessary,' said Fire Chief Edward H. Meginnity, 'as the result of accidents and oft-experienced difficulties in reaching the scene of fire with fire-fighting equipment, by reason of congested streets. Motorists, following hot on the heels of such equipment would crowd the streets, ride over hose lines, and in other ways, make difficult the work of the department. The ordinance is necessary for the public's own welfare and safety.'"

All alarms of fire are received by the Police scout cars over their radios and they keep the streets open and keep the crowds back.

As a means of eliminating this evil, my suggestion is that the ordinance be strictly enforced.

Gustav Anselm, Chief, Wyandotte, Mich.: The only means we have to prevent motorists from converging to a fire is to immediately relay the fire call to the Police Department, to which they respond as soon as we do. We have been getting wonderful results through their cooperation.

W. P. Weeks, Chief, Battle Creek, Mich.: Our traffic ordinance adopted March 3, 1930, as follows, takes care of the problem of motorists hindering the progress of fire apparatus when responding to an alarm:

"When any Fire Department vehicle or apparatus of the city is on the way to attend or fight a fire or to answer a call or alarm, no other vehicle other than an ambulance or Police or Fire Department vehicle shall follow within five hundred feet of same in any public street, roadway or alley in said city."

This ordinance also provides regulations for the parking of vehicles in front of the Fire Department station. It states that cars are not to be parked within twenty feet of the driveway leading to the fire station nor across the street within the area allowed. There is also a provision prohibiting people from parking cars within three hundred feet of a fire which is being attended and fought by the Fire Department.

The ordinance further provides "when red lights of any overhead traffic regulating signal are illuminated, it shall be notice of a fire alarm, and all vehicles and horses within 500 feet of such light or signal shall draw as near to their right hand curb of the street as possible and come to a stop, so as to permit the Fire and Police Department apparatus and vehicles a free passageway through such streets, and such vehicles and horses shall remain in such position until such traffic signals change. . . . Police vehicles, Fire Department apparatus and vehicles, ambulances, etc., belonging to or in the use of the city of Battle Creek shall have the right of way in any street."

The enforcement of the above ordinance would eliminate this evil, I believe.

C. L. Downing, Chief, Grand Junction, Col.: Our city ordinances forbid motorists from following fire apparatus nearer than 500 feet or coming in closer than 500 feet to a fire.

Police do respond to fires to make arrests of offenders; if not on the apparatus they are in police cars. We have had good results.

The only suggestions I might have would be to draft an ordinance preventing motorists from converging to a fire area closer than a given distance and rigidly enforce it.

E. F. Coop, Chief, Pasadena, Cal.: Our experience is that education has little or no effect in curbing the motorists from converging to a fire area. Enforcement of existing ordinances regarding this matter is effective to some extent. The remedy is to have a police broadcasting system with a registrar at Police Headquarters. The Police Department gets the alarm simultaneously with the Fire Department and immediately broadcasts the location to its patrol cars. In most cases the officers have the fire area cut off from traffic on arrival of fire equipment as there is always a police patrol car in any district in the immediate vicinity.

Our chief officers' cars are equipped with receiving sets, and in addition, the light and rescue car is radio equipped so that any alarm coming in after leaving the station, is known. The light and rescue car is the last piece of equipment to leave the fire scene and it responds to all alarms. One man stays with this machine at all times.

Police respond with apparatus only on some occasions.

Floyd Baker, Chief, Highland Park, Mich.: We have very little trouble with motorists blocking the area in the proximity of a fire, as a police ambulance responds on each alarm and police cruisers are detailed to the location of the fire by radio. It is the duty of the police to re-route traffic thereby avoiding any congestion in the fire area.

I believe the use of radio in Police Department has been responsible for more police officers taking care of traffic before the autos arrive in any great number.

Ralph J. Scott, Chief, Los Angeles, Calif.: We have an ordinance in Los Angeles prohibiting vehicles following apparatus of the Fire Department. The ordinance reads as follows:

THANK YOU, AGAIN

Due to the large response, the discussion of this subject has been divided into two sections. It will be concluded in the next issue.

"It shall be unlawful for the operator of any vehicle to follow any fire apparatus closer than one block, or to park any vehicle within the block where fire apparatus has stopped in answering a fire alarm."

The fact of this law being on the statute books has not corrected the trouble which this department has encountered from time immemorial, caused by the curious public flocking to the scene of fires as sightseers. It has proven to be just about impossible to get a conviction.

The Police Department makes prompt response to the scene of fires. All fires are reported over the Police radio system. Generally speaking the police officers are able to effectively keep people to the established lines. I do not know of any recent arrests and prosecutions, but the fact of the law no doubt puts the police officer in a proper position to enforce his authority if he deems prosecution justified.

At times, the problem seems about the equivalent of dealing with a swarm of bees, or with a kitchen full of red ants. Beyond a sympathetic cooperation of the police, I do not know of any beneficial suggestion to make.

D. W. Brosnan, Chief, Albany, Ga.: We have city laws prohibiting motorists racing with or going behind the fire apparatus while moving to a fire; it prohibits vehicles from entering any street in which the fire apparatus is operating, and prohibits vehicles driving over fire hose. These infractions are enforced and the penalty is severe.

Two motorcycle cops and a police squad car answer all alarms, enforce the above regulations and arrest or docket cases against offenders, who are tried and penalized in police court.

I know of no better way to eliminate the evil other than by enforcing the above laws and through enforcement we are not bothered by such offenders.

Ed Nelson, Chief, Guthrie, Okla.: We have a city ordinance prohibiting motorists from driving within two hundred yards of a fire.

Policemen respond to fire alarms and make arrests when necessary.

As long as these rules are carried out, we get around at a fire very well.

F. W. Stronach, Chief, Santa Barbara, Cal.: All of our fire calls are transmitted to the Police Department over the fire alarm system and are immediately put on the air over the police broadcast. Patrol cars and motocycles equipped with radios respond to the fire and take charge of the traffic. Officers route the traffic away from the location of the fire and have obtained fair results in preventing traffic congestion.

As a suggestion to eliminate this evil, if the motorists were given tickets for this offense and compelled by the judge to wear a large sticker on their windshield for a period of 30 days, in lieu of a jail sentence, to be put on and taken off by an officer, stating they were guilty of following a fire apparatus, or causing traffic congestion at a fire, it might have the desired effect. This sticker could have the words "Traffic Violator" in red letters on a white background to distinguish it from other traffic violations where this method is used.

E. T. Rose, Chief, Wheeling, W. Va.: We have eliminated all tower bell strikers so that the public will not know where we are going. Police respond to all alarms on motocycles and the Fire Department carries enough rope to close off a city block.

I would suggest that an ordinance be passed in every city, making it an offense for any one to approach closer than 1,000 feet of any fire alarm box that has been pulled for a fire, until the fire has been declared out.

M. M. Randall, Chief, Highland, Cal.: No action has been taken to prevent this trouble, for we are not severely bothered by this. The constable is our officer and we depend on him to prevent interference from the public when operating at a fire.

* * *

ANSWERS TO PREVIOUS QUESTION

The following replies were received in answer to a previous question on the centralization of fire apparatus:

W. H. Fuller, Chief, Vicksburg, Miss.: I am not in favor of centralization of fire apparatus in one station, but of course that might be the very thing needed in some cities. However, it is impracticable in Vicksburg, owing to the steep grades we must descend in answering a fire alarm. Anyone familiar with our city wonders how we get around especially during real bad weather. Under these conditions it certainly would be a bad move to concentrate all our fire fighting forces in one station.

From an economical standpoint it probably is a good plan, but I am not a believer in so much economy as now practiced in Fire Departments. I believe it hurts everything in the fire service.

Although I am not familiar with volunteer fire department, I do think, it is a good plan to have all apparatus at one point. Under this plan the men could assemble at the station, providing of course that it is centrally located, when an alarm is sounded. It would save lots of confusion. They would render good fire service to the citizens of the community. Much depends upon the layout of a city or town and whether the department is paid or volunteer.

J. H. Smedley, Chief, Camden, Ark.: Centralization for small towns such as ours is essential and satisfactory. In most instances the volunteers have ample time to get to the station and out on one of the trucks. This speeds up the fight and gives quicker service.

Our department consists of eighteen men subject to call at all times and also two regular men on duty at the central station twenty-four hours.

Harry Arfman, Chief, Del Rio, Tex.: As far as my experience is concerned I believe that centralization is a good plan. We have only one station, but at one time there was talk of putting in one or two sub-stations. When the depression came along the idea was dropped for various reasons, one due to finances. Naturally it costs less to have the entire department in one building and it is also easier to keep check on the apparatus, men, equipment, etc.

With regard to efficiency, it is my opinion, especially with reference to volunteer firemen that they have one place to assemble such as the Central Station. In this way they become familiar with the type of equipment, methods of handling it, etc.

I believe it is advisable to only have a central station for volunteer departments. Of course this depends on the size of the city and such other elements that might enter into the need for one or more stations.

R. Chrisman, Chief, Roswell, N. M.: Cities should have two or more stations built at points for the best possible fire protection for their citizens. This enables firemen to reach the fire in the least possible time as the first two or three minutes at a fire are the ones that count.

I think centralization is unwise as it requires the department to make longer runs thereby losing time and allowing fires to gain greater headway which in turn causes greater fire loss.

I do not believe the plan of concentration of Fire Department and equipment practical, regardless if the department be paid or volunteer.

J. S. McKinney, Chief, McKinney, Tex.: Yes, I think it is a good plan to have all equipment and members located at one point or in the same station, and the station located in or near the business district. I have in mind a volunteer department in a town of 10,000 or less inhabitants.

By having all apparatus housed at one point it would be possible for the equipment to be handled by one crew, while on the other hand it would require twice as many men to handle two stations. This eliminates the necessity of a greater fire fighting force.

Henry E. Whitney, Jr., Chief, Brattleboro, Vt.: It may be of benefit to centralize men and equipment in that it might bring about greater efficiency. But if stations are too far apart, leaving high value property too remote from fire stations, then there is danger of heavy losses, due to it taking the department too long to reach the property involved.

Before such a change is made, careful study should be given to the conditions in each place as to number of stations advisable, distances, climate, and elevations. A thorough survey should be made with the aid of the Underwriters.

Officials seeking reductions in fire department expenses should bear in mind that in their own city or town the present arrangements, whatever they may be, have been brought about by other men, also elected or

appointed and before they may make drastic changes they should be sure that those changes are for the best interest of all.

James R. Cowsert, Chief, Sarasota, Fla.: The centralization of fire companies means unusually long runs to fires in the outer limits of a city, thus giving the fire opportunity to get a good start. It is a move forced on most cities by financial conditions. In our case we cover seventeen square miles from one station and some of our calls are over three miles from the station. A central station will, however, give better opportunities for drills and lectures.

In a volunteer department, where the volunteers report to the station before the trucks leave, or where the town is divided into four or five wards, the centralization plan would be preferable.

In a town with a fire alarm or signal system it would be better to have several stations. The driver could go to the fire and possibly have the hose laid by the time the volunteers arrived. The shorter the run the quicker time would be made and a booster line may do the work before the fire had made headway.

S. R. Stacey, Chief, Chanute, Kan.: Centralization of Fire Departments would be all right, depending on the amount of territory they would have to cover. I don't believe, however, it is a very good thing as it would take much more time to respond to outlying districts than if there is a company within a few blocks. There is always a possibility of being delayed by traffic on longer runs.

A central station may be satisfactory in the case of volunteer departments because the men would start from there to the fire, unless they have a system whereby they could tell to which district they were to respond.

F. P. Moore, Chief, Newton, Kan.: I don't believe that centralization is a good plan. Crowded houses result in more confusion, less efficiency, longer runs to outside fire districts, loss of time in response to alarms, etc. It doesn't pay to crowd any kind of an organization.

I believe this arrangement would do more harm than good. Response will not be as quick and as effective as compared to departments having as many stations as needed.

E. I. Kingsley, Chief, Aberdeen, S. D.: Centralization depends on the territory to be covered. If too much area must be taken care of, a loss of time may result. This relates both to paid and volunteer departments.

M. P. Burns, Chief, Tyler, Tex.: We have an area of nine square miles with only two stations, totaling twenty men. We have sixteen men stationed at the central station and four men at the other station. This arrangement has worked out nicely so far, and I am happy to say the depression has not affected us so far. We had a very satisfactory year in 1934. I have had no experience with a volunteer department.

C. A. Whiteside, Chief, Gaffney, S. C.: If all companies are housed in one station it would reduce expenses somewhat. If a city has that object in mind, I think it is all right.

I am of the opinion that in a city the department gets better results if the companies are scattered over the city. Such an arrangement would shorten the runs, and as everybody knows, the first few minutes count at a fire.

W. F. Woods, Chief, Portsmouth, N. H.: Centralization of fire stations, where it can be done without causing trouble from the standpoint of distances to be covered, is good. I think that the layout of towns and small cities govern this to a certain extent. If the men and apparatus are all under one roof it is cheaper to maintain, there is a better feeling among the men, and the cooperation is much better. If men are housed in different stations there is apt to be jealousy. I am a believer in cooperation rather than too much discipline.

R. W. Morrison, Chief, De Land, Fla.: I believe that small and medium sized cities should have their Fire Department at one central point, if possible.

The results would be less operating costs. The possibility of fire trucks from different stations colliding with each other, either going to a fire or traveling from a fire, would be lessened.

I believe the centralization plan is the only plan for a volunteer department. Volunteers can be called from a central station with less confusion, which would result in better fire fighting.

J. W. East, Chief, Hopkinsville, Ky.: While I have had no personal experience as a member of the fire department of any city, wherein more than one station is maintained, from my observation and study of fire fighting problems, I believe that concentration of apparatus is a better means of effecting economy than a reduction in the personnel or equipment of any given department. I think the standard of efficiency can be more nearly maintained.

In cities of large area, I believe efficiency of the department would be reduced. It would take too long to get to the scene of a fire in a remote district.

I do not see that this plan would either hurt or particularly help a volunteer department. In general I do not deem it a wise plan for any city to effect economies at the expense of fire protection.

Jacksonville Installs Radio Sets

Short wave radio receivers have been installed in the cars of the Chief, Deputy Chief, and Assistant Chief of the Jacksonville, Fla., Fire Department. Two years ago the fire boat John B. Callahan was similarly equipped. The location of all fires will now be broadcast by the police radio station.

Box 52 Association Meets

Stephen C. Garrity, State Fire Marshal of Massachusetts, was the speaker at the April meeting of the Box 52 Association, held in the Chamber of Commerce Building, Boston, on the evening of April 17. Others who spoke briefly were Deputy Chief John J. Kenney and Captain Thomas D. Brown, of the Boston Fire Department. President P. Hildreth Parker announced that the May meeting will be held in the Central Fire Station in Danvers, upon invitation of Chief Joseph Kelley, of the Danvers Fire Department.

HARRY BELKNAP.

Rhode Island Chiefs Meet

Chief Frank Charlesworth, of Providence, R. I., assisted by Frank W. Schrage, Chief Machinist of the department, demonstrated certain fire hazards at the monthly meeting of the Fire Chiefs' Club of Rhode Island held at Providence, April 11. With the aid of models they showed the dangers of defective electrical equipment and wiring, oil-soaked rags, gasoline fumes, and other common causes of fire.

Oscar L. Heltzen, Deputy State Insurance Director, gave a talk on fire insurance. Educational and comedy motion pictures were shown.

The annual clambake will be held at Warwick, R. I., on Sunday, June 16, at no cost to members. There will be no meeting in May.

President Charlesworth urged the members to participate in the observance of Firemen's Memorial Sunday, June 9, at East Providence.

A. ROBERT BLACK

Trenton Chiefs Ask for Retirement

Chief John G. Ford and Assistant Chief George E. McCrossan, of the Trenton, N. J., Fire Department, have asked for retirement under half pay. Chief Ford succeeded the late Jeremiah McGill as head of Trenton's Fire Department on August 1, 1931. He entered the service on November 1, 1895, as a hoseman with Engine Company No. 1, being stationed there for 11 years. In 1906, he became captain and was placed in charge of Engine Company No. 6. He served in that capacity until 1915, when he was named Battalion Chief. Ford was responsible for the modern drill school which is now an important asset to the department. This was founded a short time after his graduation in 1913 from the New York Fire College, to which he had been sent as Trenton's representative. He was the first instructor in the drill school here. During the time he was Battalion Chief, he was stationed at Engine Company No. 3. On September 15, 1918, he was named Assistant Chief, being transferred to headquarters. He will be 63 on May 31.

Chief McCrossan's service in the department dates back to July 1, 1908, his first job being with Engine Company No. 3. On March 1, 1916, he was promoted to a lieutenancy and transferred to headquarters. Two and a half years later, he became captain, and was placed in charge of Engine Company No. 9. He was designated battalion chief on January 1, 1921, and six months later became Assistant Chief.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Friction in Combined Lines

To the Editor:

Would you advise me if there would be any difference in the flow of water in the two following layouts:

(1) One hundred feet of 2½-inch hose connected to one hundred feet of 1-inch hose.

(2) One hundred feet of 1-inch hose connected to one hundred feet of 2½-inch hose, or just the reverse of problem one.

The water pressure and nozzle size is the same in both cases. L. M.

Answer: The two layouts you give should produce exactly the same nozzle pressure, providing the nozzle diameters were alike. Incidentally, the friction loss in the 2½-inch hose would be negligible compared to that in the 1-inch line.

Some Questions on Fighting Fires

To the Editor:

Will you kindly answer the two questions below?

(1) Assume a four-story building, slow burning, mill construction, used as a warehouse situated on the river front. There is an entrance to the building on the river side and another entrance on the opposite or street side, from which there is an open stairway to the top floor. There is a fire escape on one side of the building; also a freight elevator is located near the center of the building.

The first floor is used for storing burlap, paper bags, wrapping paper and twine. The second floor contains a stock of paints, oils, varnishes, glass, etc. The third and fourth floors are filled with furniture, mattresses, etc.

As captain of an engine company, you are first to arrive in response to an alarm of fire in the above building at 2 a.m. Upon arrival you find the fire has gained considerable headway, evidently having started on the first floor near the elevator shaft.

(A) State all the fire hazards which exist under the above conditions.

(B) If you were in command at this fire for ten minutes, state fully just what you would do and the order in which action should be taken, giving reasons for your procedure.

Four engine companies, one truck company and one fire boat available.

(2) Assume a brick building one story and basement, fronting east in the middle of the block; to the west in the rear, across a 16-foot alley, are three-story dwellings set back approximately 5 feet from the property line; to the north is a four-story department store; and to the south the blank wall of a fireproof theatre. The first floor is divided into five stores occupied as follows; No. 491, a battery service station, repairing and charging storage batteries; No. 493 an automobile tire sales, repair and vulcanizing shop; No. 495 a sign paint shop; No. 497 a cleaning and pressing establishment, and No. 499 a paint store. The basement is occupied jointly.

As captain of an engine company, you are first to arrive in response to an alarm of fire in the building at 10 p.m. Upon your arrival, you find that the fire has gained considerable headway, having enveloped the entire sign paint shop in flames, and is beginning to communicate to the cleaning and pressing establishment.

(A) State all the fire hazards which exist under the above conditions.

(B) If you were in command at this fire for ten minutes, state fully just what you would do and the order in which action should be taken, giving reasons for procedure.

First alarm four engine companies and one truck company available.

C. D.

Answer: In the question as presented, no reference is made to sprinklers, standpipe systems, area of building, availability of window openings, nor the location of hydrants, nor the water supply available. Assumptions will therefore have to be made. Assume that there are neither standpipes nor sprinklers in the buildings, that the area of the building is not more than 50 x 100 feet, that there are window openings on the front of the building and on the side of the fire escapes. Further, that there are sufficient number of hydrants at good pressure within easy reach of the building.

Hazards: Hazards incidental to materials on the first floor include, dense, pungent smoke, possibly toxic if there is jute in cord stored therein; rapidly spreading fire; tendency to absorb large quantities of water.

On the second floor the hazards include explosive vapors, toxic fumes and inflammable solvents. The weight of paints, varnishes and glass on the second floor may be a serious factor if the floor becomes weakened.

On the third and fourth floors the highly combustible nature of the contents, and their ability to absorb great quantities of water are the chief hazards.

Operation: If additional apparatus is likely to be required, judging from the state of the fire upon the arrival of the first company, an additional alarm, or alarms, should be transmitted at once.

See that everyone (except members of the Fire Department) is out of the building.

If fire boat is on hand promptly (arriving as soon as engine company) three lines should be stretched from the fire boat at once to the fire on the ground floor, and in addition to operating on the fire, the elevator shaft and stairway should be protected by streams.

The truck company upon arrival should delegate two men to go to the roof at once to ventilate; this company should ladder the building front and on the side, as required by engine companies.

Engine company No. 1 stretch line to top floor by way of fire escape. It is likely that fire has traveled up the elevator shaft or up stairways, and if so, the top floor will be involved. No time can be lost in getting in operation on this floor, due to the likely rapidity with which the fire will spread.

Engine company No. 2, stretch line by way of fire escape or by ladder to the second floor. A second line should be stretched if sufficient men are available. Here the nature of the material stored, the highly inflammable content of ingredients used in paint and varnish, would require prompt action in the event that fire was traveling up stairway or shaft.

Engine company No. 3, stretch line to third floor to protect areas around vertical shaft.

As soon as lines from the fireboat serve their purpose on the ground floor, they may be shifted to higher points as

required. It is believed that with this assignment the fire will be held and extinguished.

Note: Fireboat employed in Newark, N. J., to which this question refers, is of 2,600 gallons per minute capacity, and is equipped with 2½-inch outlets, making possible the use of 2½-inch lines for interior use.

Answer: *Hazards*: The chief life hazard is in connection with the theatre, which is probably in session at the time the fire occurs. Here the hazard will be due largely to panic and not to fire. It is very unlikely that the fire will penetrate the blank wall of the theatre and enter that structure.

There will be a minor life hazard to dwellings at the rear of the fire building, but this can be handled easily.

There may be a slight life hazard to the members of the department due to presence of sulphuric acid in battery service station, which may become involved by fire.

Outside of the fire building, the chief property hazard is in connection with the department store. It is likely that there are windows in the department store overlooking the fire building and if fire enters these windows a blaze of large proportions may result.

The dwelling to the rear do not constitute a severe fire hazard.

In the fire building, fire may either reach the basement and travel unobstructed through the entire row, or may enter the cockloft and travel over the row likewise.

The contents of the auto tire shop may produce pungent smoke and the presence of rubber solvent may increase the fire greatly.

In connection with the cleaning and pressing establishment, there may be some volatile inflammable present, but the quantity is not apt to be large.

The paint store, on the other hand, may create a very serious fire condition, due to the presence of large quantities of solvents included in paint and varnishes.

Operations: If additional apparatus is needed, it should be called at once, although there is no probability of the fire reaching such a stage as to require it, judging from the description as given in the question.

Should the fire threaten to extend through the entire row of low buildings, and to the buildings at the rear, no time should be lost in dismissing the audience from the theatre. On the other hand, if it appears likely that the fire will be held to the two stores in which it is found upon arrival of the department, then dismissing the audience in the theatre will not be necessary, although a capable member of the department should be dispatched to the theatre, seek the manager and have him make an announcement regarding the fire, so as to prevent panic conditions when the apparatus is heard out in front of the theatre, and when smoke may possibly reach the audience. Those in audience may be invited to leave.

Placement of the lines for this fire is a comparatively simple matter. Engine company No. 1, the first company arriving, should stretch two lines, one to the sign painting shop and one to the cleaning and pressing establishment at the front. Engine company No. 2, should stretch two lines to the rear of the building, one to cover the rear of the sign painting shop and the other to cover the rear of the cleaning and pressing establishment. These lines would also be in a position to prevent the extension of the fire across the alley to the buildings at the rear.

Engine companies No. 3 and 4, should have members check up on basement and cockloft of stores on either side of the fire buildings and, if necessary, have lines stretched to operate therein. There is danger of fire entering the cockloft and spreading in both directions and an inspection of the cocklofts in the buildings on each side of the fire building would enable the department to check extension of fire through these channels. Likewise, an inspection of the basement will determine whether or not streams are needed at that point.

Truck company should ventilate at once over sign shop and over the cleaning and pressing establishment if fire has gained an appreciable hold in these stores.

Members of the truck company should otherwise assist engine companies in any manner desired, opening up, aiding in getting lines in operation, raising ladders, etc.

It is believed that the above assignment of apparatus will handle the situation satisfactorily.

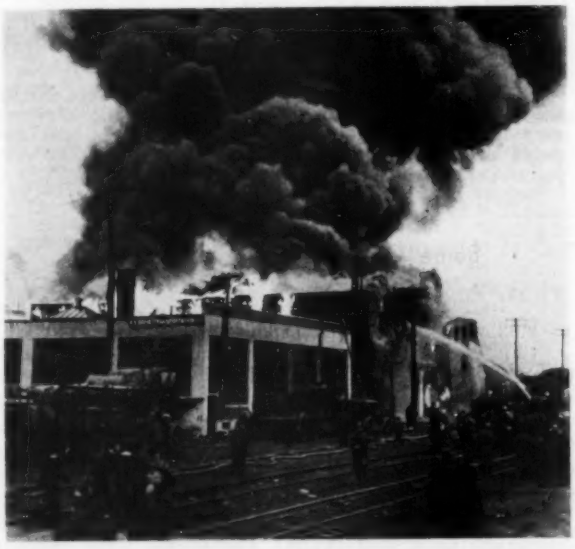
Martins Ferry, Ohio, will issue $12,000 in bonds for the purchase of fire apparatus.

Boston Has Two 4-Alarm Fires

Boston, Mass., had two 4-alarm fires recently. The first was in the South Boston district on the afternoon of March 14 and destroyed a storehouse filled with baled wool and an adjoining garage on Cypher Street. The second fire on the night of March 15 was in a mercantile building directly across from the North Station and swept the three upper floors of the 6-story brick structure.

The first alarm for the South Boston fire was sounded from Box 715, corner of West First and C Streets, at 5:30 p.m., followed by a second alarm at 5:34, third at 5:35, and fourth at 5:42. The "all out" signal was not given until 10:22 p.m. This blaze had obtained tremendous headway before it was discovered and the storehouse was completely involved before the first apparatus reached the scene. The building was a 4-story frame structure piled high with bales of wool.

Several firemen were injured when a roof collapsed and others were endangered by a falling electric wire. A number of motor trucks stored in a rear yard were destroyed, but others were driven to safety by workmen. Chief Henry A. Fox directed the firemen. The loss was estimated at $75,000.



4-Alarm Fire in South Boston

The second fire occurred in a building at 101-111 Causeway Street, occupied by a wholesale drug concern and a furniture warehouse with stores on the ground floor.

The first alarm was sounded at 11:17 p.m., the second at 11:18, the third at 11:22, and the fourth at 11:27. The "all out" came at 5:01 a.m.

The fire was fought from ladders, the elevated structure, and from adjoining buildings, as well as with streams taken inside over stairways. Dense smoke hampered the efforts of the firemen and for a time it was necessary to operate a water tower and heavy streams from points of vantage. Parked automobiles and crowds coming from the hockey game at the Boston Arena added to the confusion.

Chief Fox and Deputy Chief Louis C. I. Stickel directed the firemen. District Chief John A. Watson and two members of Protective Company No. 1 suffered injuries. The damage was estimated at $125,000.

HARRY BELKNAP.

Crookston, Minn., has purchased apparatus for making runs to the rural area.

Cambridge, Mass., recently placed in service a new 1,100-gallon Seagrave motor pumping engine and a Seagrave motor wagon for use of the Rescue Company. The engine replaces the old pumper of Engine Company No. 5, and it will be under command of Captain Charles F. O'Connor. Captain Edward J. Griffin is in charge of the Rescue Company.

The WATCH DESK

Our inquiring reporter overhauls the firemanic news of the day

By Roi B. Woolley

Fumes and Gasses

Almost every day we read in the newspapers "Fireman Overcome by Smoke (or gasses)." The reading public accepts this as a part of the life of the fireman—and goes on with its reading. Only the man in the Fire Service knows the dangers that lurk in smoke and fumes. Here are just a few examples, culled at random from a large collection:

"Fighting at close quarters to prevent hot blaze in tons of paper from spreading through loft building, crew of Engine 28 (N. Y. F. D.) cut hole in floor, operated cellar-pipe. Flames melted gas meter, overcame entire crew. Men of Engine 65, sent to rescue, were also overcome. The 13 firemen recovered."

"Small fire in one of three sub-cellars of seven-story garage, E. 92nd Street (N. Y. C.) knocked out 10 firemen, including Battalion Chief M. F. Ruddy. Firemen spent seven hours cutting through concrete to locate source of deadly gasoline fumes."

"Chlorine pipe in Knickerbocker Laundry (L. I. City, N. Y.) sprang a leak. H. & L. 116 (N. Y. F. D.) called, fixed leak. Returned to quarters, where four men collapsed. Police Emergency and Hospital aids worked over them an hour before they recovered."

"Four Merrick (L. I.) volunteers were burned and cut when 19 barrels of gasoline let go during fire in a construction shack on a building project. Watchman with lighted lantern attempted to pump gas from one of 52 gallon barrels. All recovered."

"Fire, starting in refrigeration plant in basement of Pennsylvania Drug Co. (N. Y. C.), burned advertising display material, created fumes which felled six of crew of Engine 1. Necessary to flood cellar to drown blaze."

"Twenty employees of Royalite Dress Co. (W. 26th Street, N. Y. C.), were overcome by fumes from paint pots on roof of adjoining building. Fire, Police and Gas Emergency Crews saved everyone. This recalls the 'cause-undetermined' fire in Ritz Tower (N. Y. C.) which created explosion that killed eight firemen, injured scores."

"Fifty firemen were overcome by 'cold smoke' (so named by Dr. Archer, famous N. Y. F. D. Doctor) while fighting fire in plant of Brook Bridge Freezing & Cold Storage Co. Fireman Mulholland, of Rescue 1, (N. Y. F. D) overcome while wearing gas mask. Fire was in packing used for refrigeration purposes. 'Smoke Extractor' (N. Y. F. D.) used successfully to draw off deadly fumes."

"Gas, escaping from street main, accumulated in basement of Brooklyn (N. Y.) Department Store. Prviate alarm brought firemen. Explosion occurred, killing one, injuring 14, including firemen and reporters. Store watchman also died. Gas continuing to seep into basement, firemen ignited the flows and prevented further explosions."

"Smoke and fumes from paper fire in recording vault, Canadian Pacific Ry. (Montreal) knocked out 32 firemen."

"Four persons injured, 250 stampeded by blast in operating booth of Pastime Theatre (Jackson, Ky.). One woman suffered heart attack; negro boy jumped from balcony, landed on head. Negro woman's dress ignited. Resulting fire almost wrecked theatre."

"Explosion in power-transformer vault of Proctor Theatre Bldg., Yonkers (N. Y.), killed three, injured others. Luckily theatre had not opened. Believed cause was short-circuit igniting gas which had accumulated in underground space because of snow closed vents."

"Violent and mysterious explosion in Palace Shoe Rebuilders shop (N. Y. C.) threw garment center into near-panic, scattered 100 employees in the three-story building, started fire, which was promptly killed by F. D. Many escapes from death."

"Explosions of gas pockets in conduits of Edison Co. (N. Y.) in Bronx, shot five manholes into air, set fire to skirt of passing negress, put out lights in many apartments, created small panic, brought F. D., Gas and Police Squads. Not known whether accumulation of gas from leaky main was set off by short-circuit, or whether escaping sewer gas ignited."

Hot Easter

James Chilakos (New Brunswick, N. J.) worked three weeks making 1,500 Easter eggs. His candy shop caught fire. Chilakos fled; knocked himself out when head struck sink. Firemen rescued him. Meanwhile eggs popped.

Firemen Wreck Own Alarm System

Inwood (N. Y,) is one of few Long Island communities having box alarm system. Members of the vol. department supervised burning of rubbish in vacant lot to help reduce brush fire hazards. After they returned to quarters, satisfied, discovered to their chagrin, all their box alarm circuits were short-circuited, Coast Guard and Police telephone communication paralyzed, etc. Trouble traced to vacant lot where burning rubbish directly over trunk cable had hopelessly fused all wires. Clark Wanser, Chief of vols. had no comment to make.

Blaze Brought Blessings

Fire in the home of William O'Boyle, Long Island City (N. Y.), brought Engine Co. 258, Truck 115 (N. Y. F. D.). Firemen found family utterly destitute. Put out blaze, took up collection, handed family enough cash to buy food and other necessities, then secured job for one of the daughters and set to work to get O'Boyle work. Hard-boiled, these firemen!

The Month's Tall Story

This one comes from Detroit. Fifteen thousand dollars worth of sponges were destroyed in a fire in plant of Armaly Sponge & Chamois Company, wholesalers. Because warehouse was full of sponges, although 92,000 gallons of water were pumped into building, not a drop ran into street, the entire amount being absorbed by the thirsty sponges. Inquiring reporter checked this through *Drug Trade News*, which printed story. One way to "hit" a fire is to "soak it" with a sponge!

Was His FACE RED!

Arthur C. McMurray, retired Sacramento fireman dropped in on former buddies to swap yarns. Alarm hit in, firemen rushed out—all but Arthur. "Not for me," he said, "I'm through with such wild rides." When the gang returned Arthur said: "Well boys, it couldn't have been much of a fire. What was it?" "Your own house," was the reply. Exit Arthur.

Match—Attic—Death!

Rummaging in the attic for a keepsake, Mrs. Hortense Davis, thirty-eight, wife of prominent Evanston (Ill.) broker used match, ignited clothes. Husband beat out flames but too late. She died three hours later in hospital. Careless handling of matches is not confined to children.

Stills Still Cause "Stills" and "Fulls"

Fire destroyed a red barn near Hammonton (N. J.) last month; uncovered 1,000 gallon still and complete plant for producing alcohol. Fire discovered by Fire Warden Maurice Aaron; he called Hammonton Vols, who turned in "full" alarm and fought exploding drums, burning grass and woods. Reported bootleggers had taken over barn surreptitiously in owners absence.

Luck!

Four years ago State department of Education (N. Y.) described Ogdensburg (N. Y.) Public School No. 2 as "a veritable fire trap." Nothing was done about it. Fire proved contention right by destroying structure shortly after 450 pupils, ranging from six to fifteen years of age, had marched to safety in what they thought was a fire drill. Ogdensburg fire fighters and parents still congratulating themselves.

'Nother Traffic Tragedy

A woman and a fire truck driver (Luther Nettleton, 25) of Mt. Carmel (Ind.) F. D. were killed and three other persons injured in fire-truck-auto crash at Mt. Carmel near Princeton (Ind.) recently. Truck en route to fire met auto driven by N. B. Newton. Reported confusion over right-of-way.

WHAT DO YOU KNOW?

The Editor of "The Watch Desk" welcomes contributions from readers of Fire Engineering that briefly give facts about interesting, odd things that have to do with fires, fire-fighting, etc. Address "Editor, Watch Desk."

Four Hurt as Fire Razes Three Buildings

Four firemen were hurt when fire razed three old five-story buildings at the fashionable Sutton Place section of New York City on April 4, due to overheated tar that was being used in renovating the buildings. The buildings, the last of the tenement houses of the district, had been untenanted for about eighteen months but were being modernized.

Three alarms were turned in. A wall gave way and buried a fireman who was supervising the operation of a pumper. Two others were hurt trying to free him.

The fire boat George B. McClellan responded. A hose line was run to an engine to throw a high pressure stream

Many Hose Streams Were Used at the Sutton Place Fire

on the buildings. One fireman lost a finger as he was oiling an engine on the fireboat. By late afternoon only the front and rear walls remained of the three tenement houses.

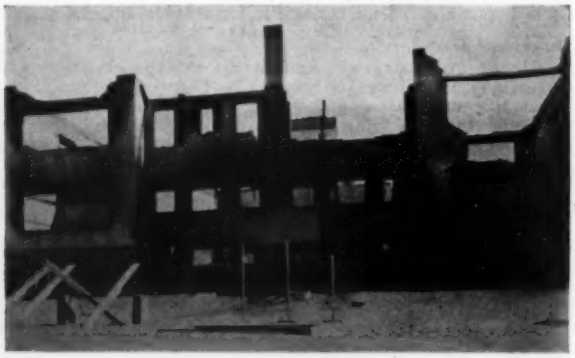
WHAT'S BURNING?

THE following list includes fires of $50,000 loss and over in the United States and Canada, for the month of April, 1935. These figures, compiled from the telegraphic reports are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they are an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Month Ending April 30	Loss in Thousands of Dollars
Waterford, Conn.—Oswegatchie House destroyed	80
Depew, N. Y.—Property of Depew Coal Co., destroyed	80
Beaumont, Tex.—Refinery of Magnolia Petroleum Co., destroyed	450
Salt Lake City, Utah—St. Mark's Episcopal Church destroyed	50
Coalinga, Cal.—Fox hotel building destroyed	65
Leedey, Okla.—Leedey Consolidated School bldg. and gymnasium	50
Winslow, Ark.—Business property including post office, etc.	50
Hammond, La.—Hammond Box Factory and adj. property	250
Richmond, Ind.—Kroger Grocery Co. store	50
Atlanta, Ga.—Dwelling of Arthur L. Norris	50
Springfield, Mass.—Plant of Springfield Ice Co., destroyed	65
Saginaw, Mich.—City hall destroyed	150
Kingsville, Ont.—Epworth United Church destroyed	80
St. Paul, Minn.—Storage shed of Lampland Lumber Co., damaged	50
St. Paul, Minn.—Plant of St. Paul Hydraulic Hoist Co.	80
Gold Point, Nev.—Property of Ohio Mines Corp. damaged	50
Kirkwood, Mo.—Lutheran Orphans Home in St. Louis County	125
Atlanta, Ga.—Plant of Warren Refrigeration Co., damaged	50
Haverhill, Mass.—Plant of Briggs Leather Co., damaged	100
Winnipeg, Man. Can.—Shamrock grain elevator destroyed	80
Southbridge, Mass.—Dwelling of J. M. Wells, Eastford Rd.	55
Luscar, Alta.—Luscar collieries building destroyed	50
Long Island City, N. Y.—Sugar whse. at Insular Terminal Corp.	160
Clarksville, Tenn.—Franklin Street business property	100
Los Angeles, Cal.—Plant of Manning Coffee Co., damaged	1,000
Brooklyn, N. Y.—Whse. of N. Y. Dock Co., destroyed	400
Hanover, N. H.—Dartmouth Hall of Dartmouth College damaged	50
Mount Carmel, Pa.—Bldg. of Eureka Motor Exchange damaged	250
Corsicana, Tex.—McKie building and adj. property	50
Belle Harbor, L. I. N. Y.—St. Francis de Sales Church destroyed	125
Silverton, Ore.—Business property destroyed	80
Salem, Ore.—State Capitol building destroyed	1,200
Rockaway Beach, L. I. N. Y.—Rockaway blvd. business property	65
Long Island City, N. Y.—Whse. of Insular Terminal Corp. destroyed	250
Taunton, Mass.—Property of Royal Coal Co., and Borden Grain Co.	80
Tracy City, Tenn.—Foxworth Hotel and adj. property	80
St. Paul, Minn.—Twin City Lumber & Shingle Co.	80
Seward, Alaska—U. S. Navy Radio Station on Resurrection Bay	200

Warning Unheeded—School Burned

Chief T. P. Treadwall, of the Fort Collins, Col., Fire Department, delivered a talk before the students of the School at Timnath. While there, he also made an inspection and suggested the removal of the lamp cord and footlights on the stage, and the trash under the stage of auditorium. That was a year ago. Now the Timnath Consolidated School does



Ruins of the School at Timnath, Col.

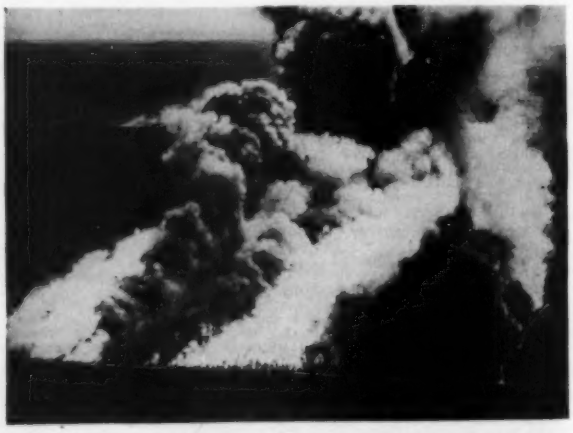
not require fire prevention inspections. It was razed by a fire which started in the auditorium from defective wiring.

The children made good time in leaving the building, as they did when Chief Treadwell witnessed a fire drill.

Forest Fire Threatens Long Island

Five hundred volunteer firemen fought a forest fire which burned over wide areas near Deer Park and Setauket in Suffolk County, N. Y. The fire was discovered at a point two miles north of Deer Park, at 11:30 a.m. on April 26.

The fire burned in a semi-circle and spread out on a six-mile front. It was only one-fourth mile from the residential



Aerial View of the Forest Fire in Suffolk County, Long Island

district of North Brightwaters when it was stopped. Two hundred boys from the CCC camp at Camp Upton aided in fighting the blaze.

Chief Carl D. Stockwell of the Burlington, Vt., Fire Department, is completing his twentieth year as head of the service. He served as volunteer fireman, 1893-5, and then served as call man when the paid department was established. He was out of the department between 1895 and 1904. Stockwell was appointed Deputy Chief, April 25, 1904, and Chief on October 30, 1914.

CORRESPONDENCE

The Results of Organization

To the Editor:

The only way we can sell the fire service to the people is through organization. A year ago I set out to organize Mercer County and today we have one of the finest groups of firemen to be found anywhere. We hold a meeting each month in a different town, and in this way we get to know each other. The different supply companies attend our meetings and demonstrate their wares and they have been selling their equipment to the companies of this organization. This certainly has helped all around.

Before we organized, if we went to one of the smallest towns of the county to look for the Chief or one of the fireman, we would spend as much time as it would take to interview every Battalion Chief in the city of New York. Now, since we have organized, we know who we want and where to find him at any time.

We all work on the various bills that come up at the capitol, also. It used to be that if we wired or wrote to the Senator or Representative of the district; sometimes he would answer and most of the time he would not, but now it is different. Then we were small fish in a big pond, but now, with the organization behind us, we are just the opposite. Three or four hundred men and their friends can do a lot of damage to a man who goes to Harrisburg with the intention of failing to see that justice is done to the firemen. Of course, we are not selfish, but we want laws to protect us and we are fighting tooth and nail to get them.

Very truly yours,

PAUL J. DONLEY
("The Singing Fireman"),
Sharon, Pa.

New Ladder Added to Sydney, Australia

To the Editor:

A new 100-foot all steel turntable ladder has been added to the Fire Department of Sydney, Australia. It was exhaustively tested before members of the department at fire headquarters.

The ladder can be extended to a length of one hundred feet, fifteen feet longer than the ladders now in service locally. It is possible to use the ladder as a water tower. By means of loud speakers, the officer in charge is enabled to communicate with a fireman standing on top of the extended ladder. The extension ladder is made of hollow steel which is light and yet very rigid. It can be elevated, revolved, and extended by power generated by the motor of the apparatus through an arrangement of oil pressure. All the operations may be controlled by one operator. Safety devices prevent the use of the ladder at unsafe angles.

A life line attachment is fitted to a special steel rod and pulley block at the head of the ladder. In making rescues, the person is placed in a felt-lined belt to which is attached a suitable life line.

The ladder is mounted on a Dennis chassis, which is equipped with a six-cylinder engine developing 110 horsepower and capable of operating at speeds up to forty miles an hour.

Yours truly,

JOSEPH GUNNER, JR.,
Sydney, New South Wales,
Australia.

Rats and Glue

To the Editor:

I was quite interested in reading in your March issue a letter signed "A. H. R." regarding rats and matches. Of course there has always been an opinion prevalent that rats chew matches and thereby start fires.

A few years ago I was fortunate enough to have an opportunity to examine the matches that were responsible for the starting of a fire. The examination disclosed that the cartons holding the matches showed teeth marks of rats or mice. The marks disclosed further that the rodent was not particularly interested in chewing matches but that he seemed to be interested in eating the glue which held the carton together. In his endeavor to obtain this glue his teeth marks frequently bit through the carton into the matches. This would seem to indicate that even though rats do not eat matches, rats and matches may be responsible for many fires. It would seem also that if the match manufacturer used a glue which was obnoxious to rats the danger would be considerably reduced.

Yours very truly,

F. H. STEINICKE,
Ass't. Sales Manager,
Fire Protection Equipment Division,
American-LaFrance and Foamite Industries, Inc.

Pet White Rats and Matches

To the Editor:

In your March issue in Questions and Answers, Page 104, the old subject of "Rats and Matches" was brought up again.

For the sake of argument, I might state that on July 9, 1934, at the residence of O. J. Newlander, 531 No. Hermosa, we had a fire, that originated in a "dufold," which damaged the front room of this residence. These people had gone to the mountains early in the morning, leaving the house alone all day. We received the call at 7 p.m. At the side of the "dufold" was a smoking stand which was not damaged by the fire. We found matches scattered all over the smoking stand and the floor, both ends of them being chewed off. I saved some of them at the time.

After considerable hunting we found a pet white rat in one of the rear rooms of the house packing a match. He had the hair and whiskers singed off one side of his face. I tried to purchase this rat at the time, so I could send it to the Underwriters, along with the matches, but was unable to do so.

Mr. Creager, of the Adustment Bureau here, laughed at us, so I took him to the house the next morning. We put some matches down for the rat, and it immediately started nibbling at them. I am sure if you should write to Mr. Creager he would verify this.

Furthermore, on April 25, at 11:48, we answered an alarm to 1310 East Silver Avenue. No one had been at home since early morning. The boy had turned two white rats loose on the sleeping porch when he left. Here we found about the same conditions as before. The two rats had worked their way under a table where no fire had touched, and were suffocated by smoke. One of them had his whiskers burned off, but all the rest of the hair was intact on their bodies. However we were unable to find any matches they had been nibbling on, but there were matches scattered all about the room, and in such places that would indicate that they were placed there by the white rats.

It is my opinion that pet white rats will carry and nibble on matches. I hope that this will help some in clearing up this much discussed question.

Very truly yours,

W. A. WESTERFELD,
Chief of Fire Department.

Explosion Occurs in Fire Station

Fire which started in the stock room at Fire Headquarters in New Britain, Conn., on April 8, following an explosion, nearly cost the lives of several firemen who were in the cellar when the blaze broke out. One fireman was badly burned and taken to New Britain General Hospital in a serious condition.

Captain George Hoffman and two firemen, all attached to the Headquarters Company, were cleaning the storeroom with gasoline when the fumes became ignited by a pilot light from a gas heater. Following the explosion, large billows of black smoke filled the building and Chief William Noble ordered all apparatus out of the building.

Firemen were forced to lay two water lines into the cellar to extinguish the blaze which had gained considerable headway. New Britain police headquarters, which adjoins the fire station, was filled with smoke. The damage to the interior of the fire station, according to Chief Noble, was approximately $4,000. A corps of FERA workers were finishing painting the building when the fire occurred.

THOMAS F. MAGNER.

An unusually low number of fire alarms for 1934 has been reported by Dundee, Scotland. During the year there were 502 calls of which 264 were within the city. Only one false alarm was received.

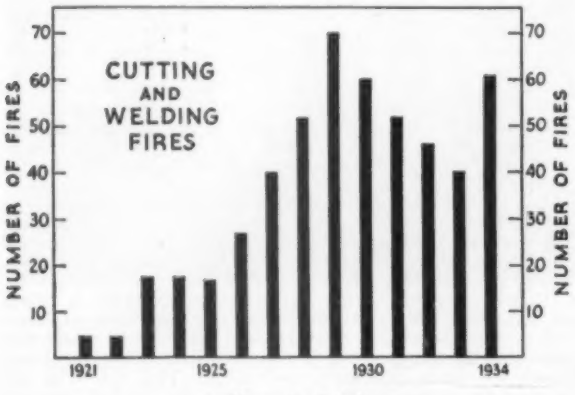
RECOMMENDED METHODS TO MAKE EMPTY TANKS SAFE FOR WELDING

American Welding Society Outlines Methods for Making Such Tanks Safe for Later Welding or Cutting Operations

SEVERAL fatal accidents have occurred as the result of welds being made on tanks which formerly held combustible contents. Even though the tank has been emptied and permitted to remain "empty" for several days, the rest period has not been found sufficient to free the tank from heavy explosive gases. The problem has engaged the attention of the American Welding Society, and tentative recommendations have been drafted for welding or cutting certain types of containers which have held combustibles.

Three methods are outlined. The preventative work may be done by the inert gas method which employs nitrogen or carbon dioxide, hot chemical cleaning method, and the steaming method.

Any one of these methods is applicable where the container held gasoline and is complete in itself. As an added



A Change in Trend

With the increase in industrial activity, the number of fires caused by cutting and welding in Factory Mutual plants showed an alarming increase in 1934.

safety measure, it is sometimes advisable to supplement one of the methods such as the hot chemical, or the steaming method, by the use of the plan using inert gas.

With the inert gas method, all openings of the tank with the exception of the drain and vent are closed, using damp asbestos, friction tape, or wood flour, for plugging cracks and damaged sections. The container is filled to overflowing with water, and if possible, water should be admitted through the drain. Where it can be done, the tank should be so placed that the portion to be worked should be on top. Drain off the water and allow as much to remain as welding or cutting work will permit. This reduces the amount of inert gas that is required.

Carbon dioxide is introduced in an amount sufficient to produce a concentration of not less than fifty per cent by volume. It will be necessary to introduce a volume of inert gas at least as great as the volume of the gas space in the container. Where the tank is of sufficient strength, the committee recommends that the pressure in the container be raised by the inert gas to ten or fifteen pounds per square inch. Dry ice or carbon dioxide tanks may be used to supply the gas. One pound of dry ice will vaporize to 8.7 cubic feet of carbon dioxide gas at 70° F.

As a precautionary measure, samples of the gas should be taken from the tank, and at a safe point from the tank, the sample should be exposed to the flame. If the gas does not ignite or flash back, the container may be considered safe for welding or cutting operations.

When employing chemicals for making such tanks safe for welding, the committee recommends compounds of sodium silicate or tri-sodium phosphate (strong washing soda) dissolved in water to a concentration of from two to four ounces of chemical per gallon of fresh water. All openings in the tank are closed with the exception of the drain and filling connection. The tank is filled to overflowing with water and flushed thoroughly. The tank is then drained. The amount of chemical required is dissolved in small amounts of boiling water and the solution is poured into the container. Fresh water is added so that the solution completely fills the tank.

A steam connection to the container is made either through the drain connection or by a pipe entering the vent and leading to the bottom of the tank. Steam is admitted to the chemical solution so that the water has a temperature of 170-190° F. At intervals during the steaming, sufficient water is added to allow for the overflowing of scum or sludge that may collect on the top. The steaming process is continued until no appreciable scum or sludge appears on the top. The tank is drained, and as a safety measure, a sample of gas is tested as by the previous method, and if the results are satisfactory, the tank is ready for use.

Before using the steaming method, the tank is filled one-fourth full with hot soda or soda ash (one pound caustic to a gallon of water), and the mixture agitated to insure that the interior is thoroughly flushed. Live steam is blown into the tank through the drain for a period of time which is governed by the nature of the flammable substance previously contained in the tank. Steaming should be continued until the container is free from odors and the metal parts of the container are hot enough to permit steam vapors to flow freely out of the vent or similar opening. Then thoroughly flush the inside of the container with boiling water and drain the tank. By means of an approved electric lantern, examine the tank to see that it is clean. If not, repeat the process. If clean, test a sample of the gas content, and should the test be satisfactory, the tank is safe for welding.

Plan to Load Hose Into Fire Apparatus

A device, illustrated herewith, is designed to assist in loading hose into the body of fire apparatus. The idea was conceived by Captain Hennig, of the Highland Park, Ill., Fire Department, and the following description and the drawing shown were furnished by Edward C. Hoskin, Fire Marshal of that department:

Take an oil sign standard, with 24-inch iron base and tap the center for a 1½-inch pipe. Cut threads on a piece of the pipe and screw into the base. The length of the pipe should be 36 inches. Take the round top of the oil sign and drill four ¼-inch holes in it. Then remove a rear wheel and axle from an old Chevrolet car and bolt to the sign. Place the axle in the 1½-inch pipe. If desired, place a large washer between the pipe and the flange of the axle.

This arrangement, according to Mr. Hoskin, is a time saver, as well as a man saver. It keeps the hose off of the floor and saves the outer jacket. The apparatus can be

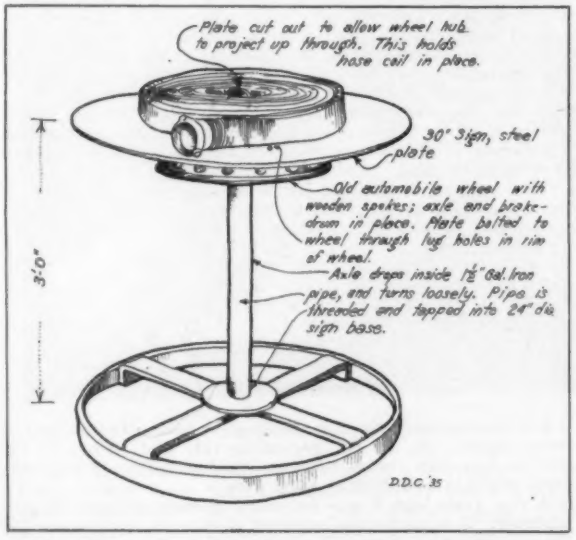


Plate cut out to allow wheel hub to project up through. This holds hose coil in place.
30" Sign, steel plate
Old automobile wheel with wooden spokes; axle and brake-drum in place. Plate bolted to wheel through lug holes in rim of wheel.
Axle drops inside 1½" Gal. Iron pipe, and turns loosely. Pipe is threaded and tapped into 24" dia. sign base.
3'-0"
D.D.C. '35

Device to Assist in Loading Hose Into Body of Fire Apparatus

washed and the hose loaded at the same time. One man can carry the dry hose from the hose rack to the hose loader, and one man make the connections and feed hose to the man loading the hose in the body.

Washington Enacts Civil Service Law

Defining the classified civil service and providing that the provisions of the law shall include: "all full paid employees of the Fire Department of each city, town or municipality, including the Chief of that department," the Washington State Legislature enacted a state-wide civil service law at the session just completed.

The statute is mandatory and not permissive, providing that ninety days after the law is effective, the constituted authorities of each city shall appoint a Civil Service Commission in conformity with the law, under penalty of fine and imprisonment. The law is patterned after the standard civil service law, but is more liberal than that law in many provisions. In fact, it outmodels the model law and is the finest legislation for Fire Chiefs and firemen ever enacted. It removes their jobs from the whims of politicians and places them on a merit basis.

The law does not apply to any municipal employees except firemen, nor to Fire Departments already having civil service by city charter or local ordinance, except that in event such civil service regulations are repealed, then automatically, the Fire Department of that city comes under the provisions of the law. It creates a non-salaried Civil Service Commission to be appointed by the authority in each city having power to employ the Chief prior to the enactment of the law; provides for a classified civil service system based upon examination, investigation as to merit, efficiency and fitness for appointment, employment and promotion of all officers and firemen in Fire Departments; regulates the transfer, suspension, reinstatement and discharge of all officers and firemen; and provides fine and imprisonment for violations of its provisions.

All members of Fire Departments who have served in their positions for a period of six months prior to enactment of the law, are inducted automatically into their positions, under civil service, without probation. Under the law, Fire Chiefs and firemen, after appointment, hold their position indefinitely during good behavior and may only be dismissed from their positions, or suspended, for cause, after charges have been filed with the Civil Service Commission. They then may appeal to the Civil Service Commission for a hearing, at which they may be represented by counsel and present evidence in their own behalf under oath. The Commission may order their reinstatement or uphold the dismissal, and if upheld, further right of appeal to the courts is provided.

City clerks, treasurers and comptrollers are prohibited from paying any wages to persons for services in a Fire Department who have not been appointed to their positions in accordance with the provisions of the law. The law was sponsored by the International Association of Fire Fighters, Local No. 27, Seattle, Wash., Max Maximilian, Secretary. He was the lone lobbyist for the law during the legislative session.

ROBERT B. ROGERS.

Fire Station Dedicated at Gardner, Mass.

The official dedication and inspection of the new Fire Station No. 1 in Gardner, Mass., took place on April 19, with fitting ceremonies, under direction of Chief Robert M. Tappin, of the Gardner Fire Department.

Work on the new building was started on June 7, 1934, under supervision of the architect, Carroll St. Hilaire. All labor on this project was carried out under ERA rules and regulations. The federal allotment was $21,295.70 and the city appropriation was $15,000.

The building is of brick construction, two stories in height. It has three upward swinging doors, oil heat, the latest type of signal apparatus, provision for an air whistle, seven comfortable bedrooms, office, dining room, kitchen, large linen closet, bathroom, lavatories, and locker room. The wiring and alarm system were installed under the supervision of John H. Leamy, Superintendent of Fire Alarms.

HARRY BELKNAP.

New Hampshire Chiefs Elect Officers

Captain Richard J. Tierney, drill master of the Arlington, Mass., Fire Department, gave an instructive talk on "Training Schools for Firemen" at the meeting of the New Hampshire Fire Chiefs' Club which was held in the Eagle Hotel, Concord, on April 10.

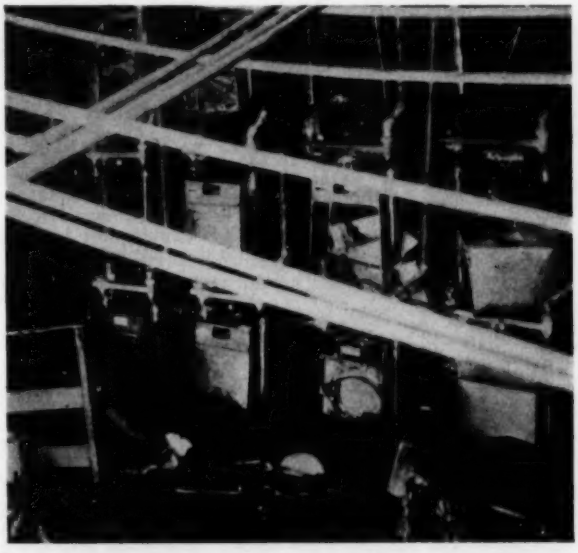
New officers elected for the ensuing year are: Chief Eugene B. Riley, Keene, President; Chief Ralph S. Goodrich, Epping, First Vice-President; Chief Carl E. Crowley, Ashland, Second Vice-President; Chief Albert C. Melendy, Nashua, Secretary-Treasurer. Chief Harry D. Hilchey, Bedford, was chosen sergeant-at-arms and the following Board of Directors was named: Chief Charles H. French, of Manchester; Chief William T. Happny, Concord; Chief William F. Woods, Portsmouth; Chief Fred M. Sargent, Sunapee; and Chief Arthur W. Spring, Laconia.

The club voted to accept the invitation of Chief Melendy, of Nashua, to hold the June meeting in that city with a field day and shore dinner at the Benson Animal Farm. Ladies are invited and an invitation has been extended to the Fire Chiefs' Club of Massachusetts.

A rising vote of thanks was extended to the retiring president, Chief Harry J. Monahan, of Berlin. Thirty-five members were present.

Three Overcome by Gas in Apartment Fires

An elderly woman and her daughter, a nurse, were fatally overcome and a score of firemen were injured and overcome by smoke and illuminating gas at a two-alarm fire in the three-story Harding Apartments on Central Avenue, Bridgeport, Conn., on March 7. The fire was the work of an incendiary, according to fire and state police officials, as another fire in a wing apart from where the most disastrous blaze was discovered by firemen and extinguished before it gained headway.



Connecticut May Require Shut-Offs on Gas Lines

Sixty gas meters were ablaze in the Harding Apartments at Bridgeport, Conn., recently. Two occupants died as the result of escaping gas. Due to this method of installing meters, a bill has been introduced in the state legislature to force gas companies to install shut-offs on the outside of buildings more than two stories high.

The fire occurred shortly after midnight while all occupants of the building were asleep. Firemen were forced to use aerial ladders for rescue work. The elderly woman and her daughter were killed by gas fumes which filled the building after thirty-five gas meter located in the cellar ignited. The fire started in a wooden bin near the meters and burned upward to the floor beams.

At Hartford, on March 9 a clerk in the State Health Department offices, was killed by gas fumes in an apartment house fire in a manner closely paralleling the way in which the two women were killed at Bridgeport.

State Senator Audubon J. Secor drafted a bill to amend the state Tenement House act which will force gas companies in Connecticut to provide easily available street shut-offs for each building housing more than two families. The bill will be raised in committee at the present session of the State Legislature and representatives will press for its passage as a result of the Bridgeport and Hartford tragedies.

THOMAS F. MAGNER.

Chief Underhill, of Ashby, Mass., Dead

Chief George B. Underhill, of the Ashby, Mass., Fire Department, died at his home on West Main Street in Ashby on April 3, after an illness of several months. There was a large attendance at the funeral services which were held on April 5. Burial was in Glenwood Cemetery.

Oklahoma Chiefs To Meet

Oklahoma City, Okla., will be host to the conventions of the Oklahoma State Firemen's Association, the Fire Chiefs' Club, and the Southwest Association of Fire Chiefs, with headquarters at the Huckins Hotel. The Chiefs' Club will meet June 16 at 8 p. m., and the other two associations will meet on the following day.

Minneapolis Has Fire Fans Club

To the ever-increasing number of fire fan clubs, may now be added the Box 35 Associates of Minneapolis, Minn. The Chief is Russel R. B. Jerry. The club would like to hear from other associations of a similar nature. Write to Assistant Chief A. M. Anderson, 4512 Harriet Avenue South, Minneapolis, Minn.

College Students Serve as Firemen

Eight students of Ohio State University are serving as firemen of Upper Arlington, Ohio, during the hours of 7 p.m. to 6:30 a.m. Six receive ten dollars a month and two, twenty-five dollars a month, in addition to sleeping quarters. Only students of the athletic type are selected. The men sign a contract with the city. The students are given two nights off during the week, but are required to attend a four-hour drill with the regular firemen on Saturday morning, starting at 7 a.m. They make minor repairs to the city's movable equipment and manufacture parking signs. The work is so arranged that it does not interfere with the college schedule.

Fireman Killed by Gunmen

Following a dispute regarding smoking in a place of public assembly, Ed Ratchford, a member of the Jackson, Mich., Fire Department, who was on duty, was shot and killed at close range by a gunman.

Two men and their girl friends were smoking in a hall that was used for a Walkathon contest. The fireman asked the two couples to stop smoking in the hall as it was against the fire regulations, but they could smoke in the lobby. They did not comply, and when they again refused to obey, the fireman shoved them into the lobby. One asked Ratchford to come outside to settle the matter. He did, but the other man fired six shots at the fireman. The two gunmen and their friends fled in an automobile.

The fireman was thirty-five years old. He is survived by three children and his parents. He joined the department May 1, 1932.

Rural Fire Apparatus at East Stanwood, Wash.

East Stanwood, Wash., has apparatus for fighting rural fires mounted on a Ford V-8 chassis. It has a 200-gallon booster tank, carries about 800 feet of various size hose and has an enclosed cab in which several men can ride in comfort to the fire. Other volunteer firemen follow in their own cars. G. R. Hurd starts his ninth term as Chief.

Iowa Fire School to be Held May 21-24

The 11th annual Iowa Fire School is to be held at the Iowa State College, Ames, Ia., on May 21 to 24. While three hundred and eighty-two firemen and city officials attended the 1934 school, it is expected, according to Lindon J. Murphy, Municipal Engineer, in charge of the school, that there will be a larger attendance this year. Exhibit space will be provided without charge for a limited number of manufacturers handling equipment, furnishings and apparatus for fire department use.

Training School to Be Held at Syracuse

A three-day short course of instruction in fire department subjects will be held at Syracuse, N. J., June 3-5, under the direction of the Municipal Training Institute of New York State and in cooperation with the New York State Conference of Mayors and the New York State Association of Fire Chiefs. Much of the instruction will be given through blackboard demonstrations. The first institute of this type was held at Glens Falls in 1931.

Ladder Contest Held at Kansas City, Mo.

Forty-three seconds were all that was necessary for the winning ladder company of the Kansas City, Mo., Fire Department to raise a fifty-foot extension ladder, and for five men to climb the ladder and into a third-story window. The contest was held at the department training school. Frank Ferguson, a member of the Fire Committee of the Chamber of Commerce, presented a cup to Hook and Ladder 5, the winner of the contest. The three companies which participated had tied in previous maneuvers.

Box 13 Association Holds Ladies Night

The last meeting of the Box 13 Association, Cincinnati, Ohio, was designated as Ladies Night, and many of the members brought their wives. The guests included Chief Houston and many city officials.

Drillmaster Williams, of the Cincinnati Fire Department, explained motion pictures taken of the local fire school. The pictures showed the cub firemen entering his new duties, and the various stages of his schooling. Hose layouts and ladder work were also shown.

R. R. BALLANTYNE

Compensation Law for Firemen

Efforts are being made by the volunteer firemen of New York State, to have volunteer firemen come under the protection of the compensation act which is accorded employees of other occupations.

Changes are desired so that the act may cover firemen, that the term "wages" of volunteer firemen shall mean the money rate or equivalent applying to the regular vocation of such volunteer firemen. Another recommended change follows:

"The Industrial Board, prior to the closing of any case involving a political subdivision of the state electing to bring volunteer firemen within this chapter, shall give due and proper recognition to any benefits collectible under Section 205 of the General Municipal Law as deductible from the total benefits provided for by this chapter.

"No penalty shall apply against such political subdivision due to any delay in the payments of such benefits, and the statutory limit of liability of any political subdivision of the state shall not be increased by electing to bring volunteer firemen within this chapter."

According to an opinion of John J. Bennett, Jr., Attorney-General on the question of whether the Board of Fire District Commissioners of a Fire District established under the town law is authorized to insure volunteer firemen of the district under the provisions of the Workmen's Compensation Law:

"Although volunteer firemen may not technically be employees of the district, nevertheless they are persons which subdivision 19 of section 176 of the Town Law expressly authorizes to be insured and which the Workmen's Compensation Law provides may be covered notwithstanding they may not be such employees."

E. H. Seaman, Member of the Board of Fire Commissioners, Wantagh, N. Y., is active in securing the benefits of the compensation act for the 150,000 volunteer firemen in the state.

Two new 600-gallon pumpers at Bridgeport, Conn., were given the official Underwriters' test.

Montpelier, Vt., has received a 600-gallon American-La-France pumper with a 100-gallon booster tank.

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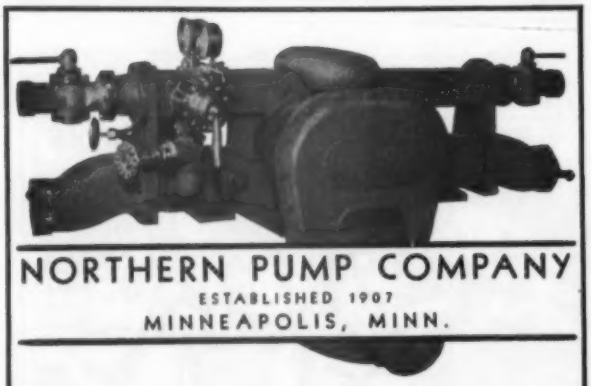

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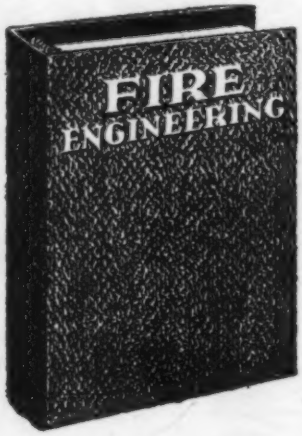

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CONVENTION DATES

May 13-17—NATIONAL FIRE PROTECTION ASSOCIATION. 39th Annual Meeting, Atlanta, Ga. Secretary-Treasurer and Managing Director, Franklin H. Wentworth, 60 Batterymarch Street, Boston, Mass.

May 15—FIRE CHIEFS' EMERGENCY PLAN (of Westchester County, N. Y.). Annual Dinner and Meeting, Murray's, Bronx River Parkway, near Tuckahoe, N. Y. Secretary, Capt. Walter M. Dawkins, Box 341, Port Chester, N. Y.

May 16—NEW JERSEY MUNICIPAL SIGNAL ASSOCIATION. Next Meeting, Belleville, N. J. Corresponding Secretary, Alexander A. Sullivan, Bayonne, N. J.

May 17-18—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS' ASSOCIATION. 9th Annual Fishing Party and Picnic, Lake Morgan, Que. Secretary-Treasurer, Chief Robert Harrington, Fire Dept., McColl-Frontenac Oil Co., Ltd., Windsor Hotel, Montreal.

May 21-24—IOWA FIRE SCHOOL. 11th Annual Fire School, Iowa State College, Ames, Ia. Director, Lindon J. Murphy, Municipal Engineer, Iowa State College.

May 22—FAIRFIELD COUNTY FIRE CHIEFS' EMERGENCY PLAN. Annual Dinner and Meeting, Barnum Hotel, Fairfield Ave., Bridgeport, Conn. Secretary, John Moehring, Toms Road, Stamford, Conn.

May 22-23—REGIONAL FIRE SCHOOL. First Regional Fire School, American Rolling Mill Company Office, Building, Curtis St., Middletown, Ohio. Under direction of Dept. of Vocational Education, State Univ. of Ohio. Address, Chief E. F. Reed, Fire Department, Middletown.

June 1—MID-HUDSON-HARLEM VALLEY FIRE CHIEFS' ASSOCIATION. Regular Meeting, Mahopac, N. Y. Secretary, Henry F. Drake, Clinton Corners, N. Y.

June 3-7—SOUTH DAKOTA STATE FIREMEN'S ASSOCIATION. 51st Annual Convention and 6th Annual Fire School, Hot Springs, S. D. Secretary, M. C. Sullivan, Parkston, S. D.

June 5-6—IOWA ASSOCIATION OF FIRE FIGHTERS. 13th Annual Convention, Davenport, Ia. Secretary-Treasurer, William Hottle, Des Moines, Ia.

June 11-14—ILLINOIS FIRE COLLEGE. 11th Fire College, under auspices of Illinois Firemen's Association. Director, Prof. L. H. Provine, Dept. of Agriculture; Assistant Chief Roy W. Alsip, Secretary, Illinois Association, Fire Department, Champaign, Ill.

June 15—LEBANON COUNTY FIREMEN'S ASSOCIATION. 13th Annual Convention, Lebanon, Pa. Chief Fire Marshal, A. S. Stauffer, Palmyra, Pa.

June 17-18—MISSOURI VALLEY FIRE CHIEFS' ASSOCIATION. Annual Meeting, Hotel Paxton, Omaha, Neb. Secretary, Chief Ray Tiller, Waterloo, Ia.

June 17-18—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. 30th Annual Convention, Bennettsville, S. C. Secretary-Treasurer, Chief John H. Wohlers, Charleston, S. C.

June 16—OKLAHOMA FIRE CHIEFS' CLUB. Annual Meeting, Huckins Hotel, Oklahoma City, Okla. Secretary-Treasurer, J. Ray Pence, Stillwater, Okla.

June 17-19—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 41st Annual Convention, Huckins Hotel, Oklahoma City, Okla. Secretary-Treasurer, Charles Slemp, 820 East 19th St., Oklahoma City.

June 17-19—SOUTHWESTERN ASSOCIATION OF FIRE CHIEFS. 8th Annual Meeting, Huckins Hotel, Oklahoma City, Okla. Secretary-Treasurer, Chief J. E. Taplin, Blackwell, Okla.

June 18-20—HUDSON VALLEY VOLUNTEER FIREMEN'S ASSOCIATION. 46th Annual Convention, Monticello, N. Y. Secretary, Chief Chris W. Noll, Poughkeepsie, N. Y.

June 19—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. 62nd Annual Convention, Berea, Ohio. Assistant Secretary, R. T. Boone, Second Assistant Chief, Berea.

June 19-21—MARYLAND STATE FIREMEN'S ASSOCIATION. 43rd Annual Convention, Oakland, Md. Secretary, George R. Lindsay, Hagerstown, Md.

June 19-22—NORTHWEST FIRE SCHOOL. 8th Annual School, Spokane, Wash. Chairman, General Committee of Arrangements, Chief W. P. Payne, Spokane, Wash.

June 20—NEW JERSEY STATE FIRE CHIEFS' ASSOCIATION. Annual Meeting, Flanders Hotel, Ocean City, N. J. Secretary, Fred A. Trowbridge, 29 South Street, Morristown, N. J.

June 20-22—NEW MEXICO STATE FIREMEN'S ASSOCIATION. 13th Annual Convention and 6th Fire College, Santa Fe, N. M. Secretary-Treasurer, Theodore A. Rosenwald, Albuquerque, N. M.

June 20-22—ASSOCIATED MUNICIPAL SIGNAL SERVICES. Group Meeting, Municipal Signal Associations, Hotel Campbell, Poughkeepsie, N. Y. Secretary-Treasurer, Edwin P. Cochran, 420 Yale Ave., New Haven, Conn.

June 21-22—EASTERN ASSOCIATION OF FIRE CHIEFS. 8th Annual Convention, Flanders Hotel, Ocean City, N. J. Secretary, Charles E. Clark, P. O. Box 217, Wayne, Pa.

June 25-26—SOUTHEASTERN ASSOCIATION OF FIRE CHIEFS. 8th Annual Convention, Hotel Dempsey, Macon, Ga. Secretary-Treasurer, Chief R. S. Baughan, Norfolk, Va.

June 25-27—MICHIGAN STATE FIRE CHIEFS ASSOCIATION. Annual Convention, John R. Murphy Hotel, Mt. Clemens, Mich. Secretary, George Dansbury, Grosse Pointe Farms, Mich.

June 25-27—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 13th Annual Convention, New Bedford, Mass. Headquarters, Hotel New Bedford; Exhibits, New Bedford Armory. Secretary-Treasurer, Chief John W. O'Hearn, Watertown, Mass. Chairman, Exhibit Committee, Chief Daniel B. Tierney, Arlington, Mass.

June 26-27—PROVINCE OF QUEBEC POLICE AND FIRE CHIEFS' ASSOCIATION. 3rd Annual Convention, Quebec, Que., Can. Secretary-Treasurer, Chief Robert Harrington, Fire Dept., McColl-Frontenac Oil Co., Ltd., Windsor Hotel, Montreal.

July—MICHIGAN STATE FIREMEN'S ASSOCIATION. 61st Annual Convention and 7th Annual Fire College, Detroit, Mich., probably in middle of July. Secretary-Treasurer, Statistician and Director, Fire College, Charles V. Lane, Charlotte, Mich.

July 16-17—MARITIME FIRE CHIEFS' ASSOCIATION. 21st Annual Convention, Moncton, N. B. Secretary-Treasurer, Capt. K. J. MacRae, Salvage Corps and Fire Police No. 1, Saint John, N. B.

July 16-18—GREAT LAKES FIRE CHIEFS' ASSOCIATION (Division, I. A. F. C.). Annual Convention, Lansing, Mich. Secretary-Treasurer, Chief R. E. Mottesheard, 4501 Schaefer Rd., Dearborn, Mich.

July 18-19—CATTARAUGUS COUNTY VOLUNTEER FIREMEN'S ASSOCIATION. 1st Annual Convention, Little Valley, N. Y. Address, Chief S. L. Worth, Little Valley, N. Y.

July 24-25—CENTRAL NEW YORK FIREMEN'S ASSOCIATION. 42nd Annual Convention, Corning, N. Y. Secretary, Thomas J. Murray, Cortland, N. Y.

July 29-Aug. 1—WEST VIRGINIA FIRE SERVICE EXTENSION SCHOOL. 5th Annual School, West Virginia University, Morgantown, W. Va. Address, Secretary, W. Va., Fire Chiefs' Ass'n., C. B. Powell, Romney, W. Va., or Prof. Lewis V. Carpenter, Director, at University.

July 30—WEST VIRGINIA FIRE CHIEFS' ASSOCIATION. 4th Annual Meeting, West Virginia University, Morgantown, W. Va. Secretary, Chief C. B. Powell, Romney, W. Va.

Aug. 12-13—PANHANDLE FIREMEN'S ASSOCIATION. Annual Convention, Plainview, Tex. Secretary-Treasurer, Quincy Wilson, Vernon, Tex.

Aug. 13-15—WISCONSIN PAID FIREMEN'S ASSOCIATION. 28th Annual Convention, Wausau, Wis. Secretary-Treasurer, William H. Schultz, Sheboygan, Wis., Fire Department.

Aug. 13-16—DOMINION ASSOCIATION OF FIRE CHIEFS. 27th Annual Convention, Brockville, Ont., Can. Secretary, Chief James Armstrong, Box 56, Kingston, Ont.

Aug. 16-17—WEST VIRGINIA FIREMEN'S ASSOCIATION. 35th Annual Convention, White Sulphur Springs, W. Va. Secretary, T. F. Vernon, Keyser, W. Va.

Aug. 18-21—NEW YORK STATE PERMANENT FIREMEN'S ASSOCIATION. 17th Annual Convention, Binghamton, N. Y. Secretary-Treasurer, Frank A. Emden, 1403 Mather Ave., Utica, N. Y.

Sept. 2-5—KENTUCKY FIREMEN'S ASSOCIATION. 16th Annual Convention, Georgetown, Ky. Secretary, W. S. Lipscomb, Fire Department Headquarters, Lexington, Ky.

Sept. 3-6—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 13th Annual Convention, Glenwood Mission Inn and Municipal Auditorium, Riverside, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth Ave., San Diego, Cal.

Sept. 7—MID-HUDSON-HARLEM VALLEY FIRE CHIEFS' ASSOCIATION. Regular meeting, Beacon, N. Y. Secretary, Henry F. Drake, Clinton Corners, N. Y.

Sept. 24-27—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 63rd Annual Convention, Hotel Andrew Johnson, Knoxville, Tenn. Secretary-Treasurer, Ex-Chief James J. Mulcahey, Yonkers, N. Y.; Chairman, Exhibit Committee, Chief M. T. Kenedy, East Orange, N. J.

Oct. 1-3—FIREMEN'S ASSOCIATION OF PENNSYLVANIA. 56th Annual Convention, Connellsville, Pa. Secretary, Charles E. Clarke, Wayne, Pa.

Oct. 15-17—ILLINOIS FIREMEN'S ASSOCIATION. 48th Annual Convention, Waukegan, Ill. Secretary, Asst. Chief Roy W. Alsip, Champaign, Ill., Fire Department.

Chiefs' Club Discusses Gas Masks

Gas Masks were discussed at the meeting of the Fire Chiefs' Club of Massachusetts on April 17 with luncheon in the Parker House in Boston. The principal speakers were Colonel Walter C. Baker, Chemical Warfare Officer of the First Corps Area, U. S. Army, and Captain Edward B. Blanchard, Procurement Officer of the First Corps Area. The former described the different kinds of masks and the history of their development for military use. He told of the different kinds of cannisters used for various gasses and pointed out the dangers from using masks of the wrong type. Captain Blanchard demonstrated the use of the army masks. Honorary life membership was conferred upon Ex-Chief Fred A. Leonard, of Taunton.

Chief William C. Mahoney, of Peabody, reported on legislative matters and Deputy Chief Arthur E. Miller, of Malden, described the purposes of the Massachusetts Fire Prevention Association of which he is the President.

Chief Alfred C. Melendy, of Nashua, N. H., extended the invitation of the New Hampshire Fire Chiefs' Club for the Massachusetts Chiefs to come to Nashua on June 12 to inspect the new water reservoirs and to enjoy a field day and shore dinner at the Benson Animal Farm. The club voted to accept the invitation.

The question of re-shingling roofs without first removing old wooden shingles was presented by Chief Frank Tracy, Woburn. It was the opinion of the Chiefs that this practice should be forbidden. Among those who took part in discussion were Chief Charles L. McCarthy, Worcester; Chief William J. Sands, Quincy, and Chief Warren H. Belcher, Quincy.

The May meeting of the club will be held in Worcester.

HARRY BELKNAP.

Waterbury, Conn., will use central station current for its fire alarm system instead of replacing its present set of batteries.

Washington, D. C., will purchase three fire apparatus units. Bids submitted by the McCann Corporation, Portland, Me., were accepted for two combination hose wagons and a 750-gallon pumper.

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Bids Wanted, For Sale and Help Wanted $4 per inch. Position Wanted, $2 per inch. Column width, 1⅝ inches.

For Sale

One American-La France Skeleton Aerial Truck Serial 838 with seventy-five foot aerial ladder intact. Good condition. New tires. A-1 motor. Just taken out of service. THE ISRAEL BROS. COMPANY, 1939 E. First St., Dayton, Ohio.

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for equipment or supplies make your wants known through FIRE ENGINEERING. More bidders mean more competition and better satisfaction.

Manufacturers' Announcements

Pirsch 500-Gallon Pumper

An illustrated folder has been issued by Peter Pirsch & Sons Company, Kenosha, Wis., to describe their 500-gallon pumper which is mounted on a Ford V-8 chassis.

Fire Alarm Signals

A new catalogue has been issued by Edwards & Co., Inc., 140th and Exterior Streets, New York, N. Y., to describe a line of sirens, horns, non-code fire and emergency stations, fire alarm control panels, bells and buzzers. It contains twelve illustrated pages.

Ossining, N. Y., Orders Squad Truck

The Woodhouse Manufacturing Company, New York City, agents for the Maxim Motor Company, announce an order placed by Ossining, N. Y., for a Maxim combination emergency squad truck to be delivered in about sixty working days. In addition to responding to all emergency calls, the apparatus will be used as a police and fire patrol.

Underwriters' Test Darley Lamp

Tests were recently conducted by the National Board of Fire Underwriters Engineers of the Darley F400 pump.

On direct drive, without the impeller being geared up, and through a multiple disc clutch, at a speed of 2,553 r.p.m. the pump delivered 406 g.p.m. at 125 pounds net pump pressure. On the high pressure test it delivered 203 g.p.m. at 202 pounds net pumping pressure at 3,002 r.p.m. The test, which was a regulation 12-hour performance test, was completed satisfactorily in every respect by the Darley F400 pump. Test was conducted on a V-8 1935 Ford chassis. The pump, with all attachment, weighs 175 pounds.

Checking False Alarms

Probably no problem is of as much concern to the average Fire Department today than that of false alarms. In some of the larger cities, over one-third of all alarms received are maliciously transmitted.

Many means and devices have been employed to check the sending of false alarms. One which has received considerable attention in the past two or three years is a metal cuff which forms part of an attachment which is applicable to fire alarm boxes now in service. To send in an alarm on a box equipped with this device, the hand is inserted up through the bottom of the box and a knob is turned. The moment the alarm is sent in, the cuff drops onto the wrist of the person sending in the alarm and is locked there. The cuff is too large to be concealed in the sleeve or elsewhere, and thus serves as a means of identifying the person sending in the alarm. Furthermore, this cuff is removable only by keys which members of the department carry with them.

Incidentally, it is not attached to the fire alarm box so that the person on whose wrist it becomes locked is free to return to the scene of the blaze while awaiting the apparatus, if such is necessary.

The cuff is not sufficiently cumbersome to prevent the sender of the alarm from aiding in the rescue of persons endangered by fire.

This device has been in service in the East St. Louis, Ill., Fire Department for over eighteen months. But one false alarm has been received from the boxes equipped with it during the eighteen-month period.

The Federal Cuff-Attachment door is manufactured by the Federal Fire Alarm Equipment Corporation of Dayton, Ohio.

Montana Votes for Eight-Hour Day

Montana has taken the lead in reference to an eight-hour day for firemen as reported on page 146 of the April issue of FIRE ENGINEERING. By a vote of 87 to 4, the state House of Representatives approved a bill which provides for a three platoon system in cities of the first class, and the firemen are to receive a minimum salary of $150 a month. The bill was signed by the Governor.

The combined Fire and Police Departments of Lewistown, Mont., will have roll call at 8 a.m., 4 p.m., and midnight, in accordance with the new measure. All members will be required to work straight eight hours with no time off for meals and no going to bed on shift. Off shift members are required to report in cases of emergency.

Butte has been operating under the three-platoon system since early in the summer of 1934, in accordance with a city ordinance.

The full text of the new state law follows:

An Act to Amend Section 5138 of the Revised Codes of Montana, 1921, as Amended By Section 1 of Chapter 135 of the Session Laws of the Twentieth Legislative Assembly of the State of Montana, Relating to Hours of Work of Members of Paid Fire Departments of Cities of the First and Second Class, Providing a Minimum Compensation for Members of Paid Fire Departments of Cities of the First Class, Providing that Members of Paid Fire Departments of Cities of the Second Class shall suffer no Reduction in Salary on Account of the Operation Thereof, Providing the Act shall Not be Operative as to Cities of the Second Class Unless the City Council, City Commission or other Government Body shall by Ordinance Adopt this Act, Providing Penalties for a Violation Thereof, and Repealing All Acts or Parts of Acts in Conflict Therewith.

BE IT ENACTED BY THE LEGISLATIVE ASSEMBLY OF THE STATE OF MONTANA:

SECTION 1. That Section 5138, of the Revised Codes of Montana, 1921, as amended by Section 1 of Chapter 135 of the Session Laws of the Twentieth Legislative Assembly of the State of Montana, be, and the same is hereby amended to read as follows:

"SECTION 5138. On and after July 1st, 1935, in cities of the first and second classes, the City Council, City Commission, or other governing body, shall divide all members of the paid Fire Department, except the Chief thereof, into platoons of three shifts. The members of each shift shall not be required to work or be on duty more than eight (8) hours of each consecutive twenty-four hours, except in the event of a conflagration or other similar emergency when such members or any of them may be required to serve so long as the necessity therefor exists. Each shift shall be changed once every two weeks; (Each member shall be entitled to at least one (1) day off duty out of each eight-day period of service without loss of compensation.) No member of a paid Fire Department of a city of the first or second class shall engage in any occupation of any other kind whatsoever. Members of paid Fire Departments of cities of the first class shall each receive a minimum salary of Eighteen Hundred Dollars ($1,800.00) per annum, payable in equal monthly installments. Members of paid Fire Departments of cities of the second class shall suffer no reduction in salary on account of the operation of this Act, provided that this Act shall not be operative as to cities of the second class unless the city Council, City Commission or other governmental body thereof shall by ordinance adopt same."

SECTION 2. Violation of this Act shall be deemed a Misdemeanor: Penalty. Any person who shall violate any of the provisions of this Act shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punished by a fine of not less than One Hundred ($100.00) Dollars, or more than Six Hundred Dollars ($600.00), or by imprisonment in the county jail for not less than thirty (30) days or more than seven (7) months, or by both such fine and imprisonment.

SECTION 3. If any provision, clause or phrase of this Act be adjudged unconstitutional or invalid by any court of competent jurisdiction, for any reason, such adjudication shall not affect the validity of the Act as a whole, or of any section or provision thereof which is not specifically so adjudged unconstitutional or invalid.

SECTION 4. That all Acts or parts of Acts in conflict herewith are hereby repealed.

A convention of the firemen of the northern part of Illinois and the southern part of Wisconsin, will be held in Platteville, Wis., May 23.

Efficient work by the staff of a hospital at Murray, Ky., succeeded in moving forty-two patients from a three-story hospital building. Fire spread quickly and forced three nurses to jump to safety. The loss was placed at $150,000.

Binghamton, N. Y., will purchase fire apparatus estimated to cost $14,000. The purchase was delayed by the Mayor's opposition, but the City Manager has now been authorized to make the purchase.

Chief W. B. Walters and Assistant Chief W. H. Hagensick of the McGregor, Ia., Fire Department, were unanimously re-elected for another term. Assistant Chief Hagensick has served the department for nearly forty-six years.

Wages of Butte, Mont., firemen were increased to their former level. The original cut was from $160 a month to $128, but since a five per cent restoration last August, firemen received $134.40 monthly. The new salaries are retroactive to March 1.

AFTER all, a good badge is a sensible investment. Not everyone can wear a fireman's emblem of service. You men who have devoted your lives to saving life and property should be proud of your badge.

You will be if you wear a BRAXMAR BADGE. Over fifty-five years of experience goes into every badge you buy.

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. . . Shuredry Salvage Covers have played an important role in decreasing Fire losses at Pine Bluff. We have averaged around Ten Thousand Dollars yearly salvage for the past Three years through the use of Shuredry Covers.

Every fireman knows that in all cases the water damage will exceed the direct loss by fire only, and I feel, personally, that any Fire Department is insufficiently equipped if they do not have the services of Shuredry Covers.

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Sincerely yours,
Geo. Alford, Chief
Pine Bluff Fire Dept.
Pine Bluff, Arkansas

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Dougherty Addresses Westchester Chiefs

The subjects of overhauling, direction of streams and ventilation were discussed in an address before the Fire Chiefs' Emergency Plan of Westchester County by Ex-Assistant Chief Thomas F. Dougherty, of the New York Fire Department. The meeting was held at the Consolidated Engine Company's house, Tarrytown, N. Y., on the evening of Wednesday, April 17, with an attendance of 165 Chiefs and other officers of Fire Departments. The members were welcomed by Mayor Greene, of Tarrytown. Other officials recognized by the Chair were: Mayor Sterns and Sheriff Reynolds, of Hastings; Ex-Chief Mulcahey, of Yonkers; James W. Armstrong, Superintendent of Buildings, Yonkers, and Chief John D. Morehouse, Brewster, N. Y., President, Mid-Hudson-Harlem Fire Chiefs' Association.

Judge Hoop, Bronxville, described a bill which had passed both houses of the New York State Legislature, providing that explosives could be carried in gasoline-propelled vehicles. He said that so far he had been able to have the bill held up by the Governor, but could not say what final action that executive would take in the matter. He had made strong representations to Gov. Lehman against the bill, and had received a promise of careful consideration before taking action.

The Nominating Committee reported the following ticket for election at the May dinner, all renominated except the Directors for one year:

For President—Chief Earl Krows, Hastings-on-Hudson.
For First Vice-President—Ex-Chief R. J. H. Lemon, Mamaroneck.
For Second Vice-President—Chief James McGuire, Peekskill.
For Third Vice-President—Ex-Chief Walter A. Mertz, Port Chester.
For Secretary—Captain Walter M. Dawkins, Port Chester.
For Treasurer—Captain Eugene Riviere, Larchmont.
For Directors to Serve Two Years—Chief John Gibson, Mt. Vernon; Ex-Chief James N. Sullivan, Greenwich, Conn.; Ex-Chief A. J. McCollough, Port Chester; and Chief Thomas Brennan, Verplank.
Directors for One Year—Chiefs Arthur E. Chambers, Yonkers; H. Abbot Griffen, White Plains; John J. Brennan, Pelham Manor, and Oscar Grabb, New Rochelle.

Ex-Chief Dougherty, in his talk, stressed the importance of intelligent and properly trained overhauling after a fire. He pointed out that if the work was not thoroughly done, there was always the danger of a rekindle and probably a worse fire than the first. Use hands, eyes and nose, he said, in the examination of the premises. It is up to the Chief and officers to instruct the men in this important work. In the matter of hose streams, it is important to watch the angle of the stream and also see that direction is maintained. Often, if the ceiling is used as a deflector, the stream will be more efficient, as the water is spread as a fine spray over the entire fire territory. If a stream is directed in a haphazard manner, it is simply waste of water.

Chief Dougherty spoke of the necessity of proper ventilation. He cited numerous instances in his experience as a fire fighter, where loss of life was directly due to the inhaling of hot gases, where quick and proper ventilation would have avoided this sacrifice. He urged the Chiefs to get ladders to the roofs of dwellings on fire and make outlets for the gases as quickly as possible. The same thing applied to fires in commercial buildings. Ventilation not only would save lives that might be otherwise sacrificed through the inhaling of hot gases, but it also would make fire fighting easier and more efficient.

Chief Dougherty was given a rising vote of thanks at the conclusion of his address.

It was decided to hold the annual dinner at Murrays, on the Bronx River Parkway at Tuckahoe, tickets to be $2.50 each. The date is to be Wednesday, May 15. Refreshments were served by the Ladies' Auxiliary of the Tarrytown Fire Department and dancing followed until a late hour.

Mid-Hudson Chiefs Meet at Patterson, N. Y.

The regular meeting of the Mid-Hudson-Harlem Fire Chiefs' Association was held at Patterson, N. Y., Fire Headquarters on the evening of Saturday, April 6, with 47 members and eleven guests present. The members were welcomed by the President of the Patterson Company. Chief Drake reported for the cover up plan that twenty-three replies had been received, but that a number were yet to be heard from. He urged all to send in reports as to apparatus and equipment, capacity of water supply, etc., so that the records could be completed.

A paper on "The Relation of Discipline to the Efficiency of the Volunteer Fire Department," was read by request by Robert H. Lockwood, Associate Editor of FIRE ENGINEERING. Mr. Lockwood was given a rising vote of thanks at the conclusion of the paper.

President Morehouse was elected as a delegate to the State Firemen's Association convention. It was announced that "Chief" Ed Wynn, who was to have attended a subsequent meeting, would be unable to be present, owing to the serious illness of his wife.

Several questions were submitted in the "Question Box" to be discussed, among them being "What advantage has a coded siren over regular type?" "CO_2 versus foam for a running fire," "Fire Warden or Fire Chief; which should be called for brush fire in fire district?" In discussing the last question, Chief Noll, of Poughkeepsie, though the State Commission should be asked to appoint Fire Chiefs as Wardens.

Refreshments were served by the local department after the meeting. A special meeting was called for the first Saturday in May at Poughkeepsie.

Deputy Chief Marshall Retires

Richard J. Marshall, Deputy Chief of the New York Fire Department, and considered by many one of its most colorful figures, retired on May 1, on his own application. He has been in charge of the department repair shops for the past seventeen years.

He was born in Brooklyn, sixty-seven years ago, the son of a U. S. Government employee who worked in the Orient. As a boy, Chief Marshall attended school in Japan and Shanghai.

Marshall joined the Fire Department on September 11, 1893. Two years later he was made Lieutenant; Captain, June 12, 1907; Battalion Chief, January 19, 1912, and Deputy Chief, May 16, 1925. He was a member of the Apparatus Board and the Board of Inquiry.

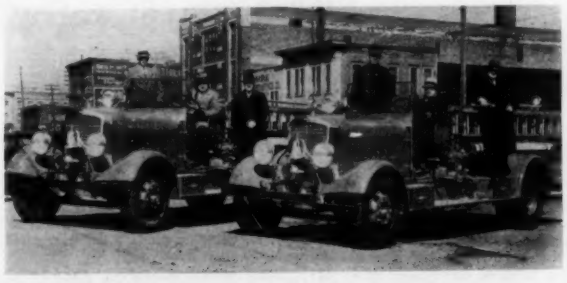
Illinois Fire College June 11 to 14

Through the cooperation of the State Fire Marshal, Sherman V. Coultas, and with the approval of Governor Horner, the Eleventh Annual Fire College will be held at the University of Illinois on June 11 to 14. Several unusual features have been included, which have never been incorporated in the program before.

Plans are being made for group discussions on topics of interest to the volunteer departments as well as the city departments, with demonstrations. The open forum held at 7:30 each evening offers an opportunity for everyone to present problems in fire fighting and have them discussed. The baseball series will be run off as usual.

Certificates for attendance will be awarded. Attendance prizes will be given. Models will be used to show how to fight fires in a city block or in a residence. The school has been advanced one week this year, which will be a week before summer school opens. One registration fee of fifty cents will cover all sessions of the College.

Prof. L. H. Provine, Department of Agriculture, University of Illinois, is the Director of the college, and Assistant Chief Roy W. Alsip, Champaign, Ill., is Secretary of the Illinois Firemen's Association.



New Pirsch Apparatus Delivered to Cedar Rapids, Ia.
Two Pirsch 750-gallon pumpers have been delivered to Cedar Rapids, Ia. During the high pressure test when 375 gallons of water were required at 200 pounds pressure, each machine delivered 500 gallons. Standing on the running board of the pumper at the right is Chief Emil P. Kohout.

Danbury Tenders Dinner to Fairfield Chiefs

The regular monthly meeting of the Fairfield County Fire Chiefs' Emergency Plan, held at Danbury, Conn., on April 24, was a distinct departure from the usual procedure. Through the courtesy of Chief McNamara and the Danbury Paid and Volunteer Fire Department, a dinner was held at 7:30 p.m., with over 300 guests seated at the tables in the Ball Room of the Hotel Green. At the conclusion of the dinner, a short meeting of the Plan was held, with President Knickerbocker presiding. The welcoming addresses were made by the Mayor of Danbury and Chief McNamara. Seventeen new members were elected. The annual dinner, according to the report of the Banquet Committee, which was accepted, is to be held at the Barnum Hotel, Bridgeport, Conn., on the evening of May 22. The Nominating Committee reported the following ticket for election at the May meeting:

For President—Chief F. R. Gisborne, Old Greenwich.
For First Vice-President—Chief Sydney Stapely, Nichols.
For Second Vice-President—Chief Horace Walker, Ridgefield.
For Third Vice-President—Assistant Chief Bernard Scully, Westport.
For Treasurer—Chief George Brencher, Darien.
For Secretary—John Moehring, Stamford.
For New Board of Directors—Chief Daniel Knickerbocker, Springdale; Ex-Chief Peter Beckerle, Danbury; Chief Charles Volk, South Norwalk and Fire Commissioner Clifford Merwin, Shelton.
Old Members of Board—Chief Victor Veit, Stamford; Chief Allan Judson, Stratford; Chief James Thomas, New Canaan, and Ex-Chief W. P. Sherwood, Southport.

The Toastmaster at the dinner was Judge Martin Cunningham, Danbury. He called upon a number of prominent members of the Plan and visiting Chiefs and other officials from practically all of the New England States, New York and elsewhere, who each in turn were greeted with applause as they rose. Chief Selden Allen, Brookline, Mass., Past-President of the International Association of Fire Chiefs, was then called upon as the speaker of the evening. Chief Allen emphasized the necessity of civil service for the Fire Department, if efficiency is to be maintained and if the evil influence of politicians is to be kept from interfering with it. He spoke of the importance of training schools for firemen, and said that over 900 men in Massachusetts had qualified as fire fighters through such schools. In this connection he paid an eloquent tribute to Former Assistant Chief T. J. Dougherty, of New York City, and said that all that he knew he owed to the teachings of that veteran of the fire service. Years ago, he said, Chief Dougherty had realized the value of education, and the result had been the founding of the New York Fire College, the first of such schools for fire officers.

The matter of prime importance in fire fighting, Chief Allen said, was the saving of human life. He urged the necessity of good equipment for Fire Departments; without that, intensive training was of little use, but the two together worked for efficiency in the Fire Service.

Eight-Hour Bill Killed in Ontario

Chiefly because of the added financial burden, the cities of Toronto, Hamilton and Ottawa, Ont., opposed a bill which would compel cities of 10,000 population or more, to establish the three-platoon system. An estimate was made that this bill would have added $1,360,000 to the annual cost of maintaining Fire Departments in Ontario.

Estimates of the added cost due to the bill are Toronto, $568,442; Kingston, $12,620; Kitchener, $18,353; Oshawa, $13,203; Ottawa, $153,809; St. Catherines, $18,969; Windsor, $58,011.

Chief Palmer to Address N. F. P. A.

Chief Hendrix Palmer, of Charlotte, N. C., Fire Department, has been invited to attend the annual meeting of the National Fire Protection Association at Atlanta, May 13, as one of the principal speakers.

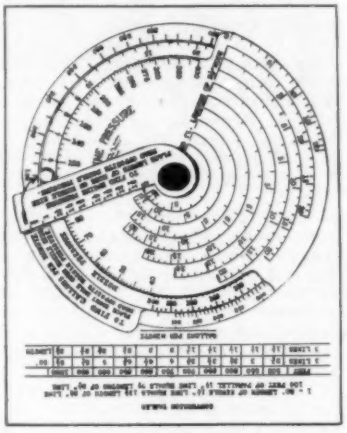
Sherwood Brockwell, Fire Marshal, said that the invitation was a signal honor for the Charlotte Chief, as only three such officers have ever addressed the organization.

While in Charlotte, Mr. Brockwell declared that plans had been completed for the fire school to be held at Asheville, at which Chief Palmer will act as Director, by virtue of his office as President of the North Carolina Firemen's Association. Assistant Chief Griswold will deliver a talk on "Live Wires."

Calculator for Engine Pressures

A device for calculating the gallons per minute discharge from a nozzle, the engine pressure necessary to give a satisfactory nozzle pressure through any length of hose with various tips, etc., has been developed by John J. Lloyd, a member of the Long Beach, Cal., Fire Department.

There is an outer scale for gallons per minute, a second scale for nozzle pressure, and a third scale for engine pressure. The arm of the scale combines the length of hose with the nozzle diameter. If all three scales are used for the same problem, the engine pressure, nozzle pressure, and gallons per minute may be read directly opposite each other.



Lloyd Calculator

A conversion table at the top facilitates the computing of two or three parallel hose lines and also 1½-inch single or parallel lines.

33-Man Department Cut to 4 Men

Zanesville, Ohio, a municipality having a population of 45,000, made a sharp reduction in the personnel of the Fire Department. The force of thirty-three men was cut to four men due to the defeat of a four-mill tax which would have raised $109,000. It is said that the city treasury faces a deficit of $129,000 for 1935.

Stanley Flood, of Columbia Hook and Ladder Company, has been elected Chief of the Croton, N. Y., Fire Department, succeeding Douglas Grant.

Five-Alarm Fire Breaks Out in Brooklyn Residential Area
Fire of questionable origin, started in a row of nearly completed apartment houses in the borough of Brooklyn, New York City, and developed into a five-alarm fire. All available apparatus in the borough responded. Due to the rapidity with which the fire spread, it is believed that there may have been some labor trouble. The apartments were to have been ready for occupancy in June.

UNION-MADE

Signal

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Fire Chiefs

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	CLEVELAND	Safety Clothing Co.	3904 Payne Ave.
	BRAINTREE, MASS.	Direct Sales Co.,	108 President Road
SOUTH	CHATTANOOGA, TENN.	C. D. Center Company,	Chattanooga Bank Building
MID-WEST	DETROIT	C. H. Dickson Company	2985 East Grand Boulevard
	CHICAGO	E. D. Bullard Company	215 South Leavitt Street
	GREEN BAY, WIS.	Safety Service Company	108 No. Quincy Street
	DULUTH	W. P. & R. S. Mars Company	324 W. Michigan Street
	HOUSTON	E. D. Bullard Company	1 Main Street
WEST	SAN FRANCISCO	E. D. Bullard Company	275 Eighth Street
	LOS ANGELES	E. D. Bullard Company	1220 South Olive Street
	SALT LAKE CITY	E. D. Bullard Company	1620 Yalecrest Avenue

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FALSE ALARMS

MISTAKE IN CLASS

Mary the corpulent colored maid employed by a suburban family, had seen the boy who delivered newspapers reach for the fire alarm box on the corner and turn in a false alarm. She was called to court as the star witness for the city.

After being sworn, she was asked the routine questions.

"How old are you?"

"I'se seventy-three, yo' Honor."

"Are you sure?"

"Yass, suh."

"My good woman, you don't look seventy-three."

"I'se sure," again repeated the maid.

After the case had progressed a few minutes, the maid interrupted the proceedings.

"Judge, I was wrong when I said my age was seventy-three. Tha's my bust measure."

Only one man when in love ever told the truth. That was Adam when he said, "Eve, you're the only woman in the world for me."

PROPER PLACE

At the fire Jim disregarded his buddy's warning and was struck on the arm by a falling beam. When the company returned to the fire house, he rubbed some liniment on the spot that was injured.

"This liniment makes my arm smart," he remarked to his friend.

"If that's so, Jim, you're using it in the wrong place. Rub some on your head."

A tabloid is a small-sized newspaper in which the news stories are funnier than the comic strips.

WRONG EMPHASIS

He was very much elated with a letter from his wife from the county community hospital. He rushed up to the Captain's office to tell him the news.

"Captain, I just got a letter from my wife. I am the father of a ten-pound boy."

"Does she say anything else in the letter?" he asked.

"That's all, Captain, except at the end of the letter she says, 'Truly yours.'"

"After all," bitterly remarked the cynic, "love is only an abscess on a poor man's pocketbook."

IT WAS BAD

Because of a smoky flue, a telephone call was sent for some extinguishers. One company of firemen arrived and the contents of several extinguishers were emptied. The smoke cleared. The Lieutenant was proud of the quick results. He asked:

"How do you like the job we did?"

The occupant, surveyed the mess, and thoughtfully answered, "Hm—it might have been worse."

"I'm sorry to hear you say that," said the officer.

"All right then—it couldn't have been worse."

And then there was the young man who called on the school teacher and had to stay an extra hour for being naughty.

STILL HOLDS

It was his night off. In his easy chair, with his ripe pipe in his mouth, he became somewhat philosophical. He remarked to his wife:

"If a man steals, no matter what, he will live to regret it."

"You know, Phil," she said sweetly, "you used to steal kisses from me before we were married."

"Well, you heard what I said."

Etiquette is when you have to say, "No thank you," when you really want to say, "Gimme some."

FELL SHORT

The village department was raising funds for the purchase of a pumper. It held a carnival, at which there was a drawing for various prizes.

A colored woman won tenth prize and she selected a box with three pairs of silk stockings. Within ten minutes she was back to the one in charge of the drawing.

"Why, what's wrong, madam," he asked. "Don't they come up to your expectations?"

"Indeedy, no," she answered very emphatically. "Dey hardly comes up to my knees."

He was 99.47 per cent pure because he once whistled a naughty song.

MORE NATURAL

The Chief, because of the many times he appeared on the program, was induced to join the local Rotary Club. That organization was arranging a father and son dinner, and in the program that was to be printed, the committee planned to use photographs of many fathers and sons. And so the Chief and his son, who was attending high school, visited the photographer.

The photographer suggested that the son stand with his hand on his father's shoulder.

The Chief remarked, "It would be more appropriate if he stood with his hand in my pocket."

The mosquito is queer. He never begins to bore you until he becomes silent.

The infant who used to tug at her mother's skirt to attract attention, now does the same to her own.

—Drawing by "Art" Espey

Fire Alarm Superintendent: "No, Mr. Breakwheel, I ain't goin' to experiment with them new fangled 'phantom' boxes. The ones we got work good enough fer anybody."

FREE INFORMATION

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34 Electric Light Plants
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36 Extinguishers, Carbon Dioxide
37 Extinguishers, Soda-Acid
38 Extinguishers, Carbon Tetrachloride
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42 Fire Department Supplies, General
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44 Fire Alarm Posts
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46 Fire Escapes, Rigid
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